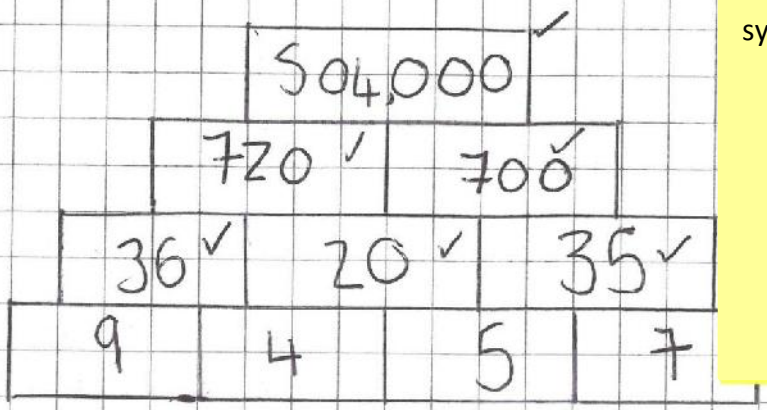
Gwaith Dosbarth 16. 5. 2014

Gwrs Cyntaf:

**Lefel 6**

"Datrys amryw o hafaliadau llinol syml"




Engreifftiau - Datrys wch

① $2x + 4 = 16$

$2x = 16 = 4$

$2x = 12$

$x = 12 \div 2$

$x = 6$

② $5x - 3 = 12$

$5x + 12 = 3$

$5x = 15$

$x = 15 \div 5$

$x = 3$

③ $4x + 3 = 5$

$4x = 5 - 3$

$4x = 5 - 3 = 2$

$4x = 2$

$x = 2 \div 4$

$x = 0.5 / \frac{1}{2} / \frac{2}{4}$

④ $2x - 3 = 4$

$2x = 4 + 3$

$2x = 7$

$x = 2 \div 7$

$x = 3.5$

## Ymarfer

① $6x + 2 = 14$

$6x = 14 - 2$

$6x = 12$

$x = 6 \div 12$

$x = 2$ ✓

② $5x - 4 = 21$

$5x = 21 + 4$

$5x = 25$

$x = 5 \div 25$

$x = 5$ ✓

③ $6x + 3 = 45$

$6x = 45 - 3$

$6x = 42$

$x = 6 \div 45$

$x = 7$ ✓

④ $9x - 3 = 69$

$9x = 69 + 3$

$9x = 72$

$x = 9 \div 72$

$x = 8$ ✓

⑤ $12x + 7 = 67$

$12x = 67 - 7$

$12x = 50$

$x = 12 \div 50$

$x = 5$ ✓

⑥ $8x - 6 = 37$

$8x = 37 + 6$

$8x = 43$

$x = 8 \div 43$

$x = 5$ ✓

⑦ $9x + 7 = 52$

$9x = 52 - 7$

$9x = 45$

$x = 7 \div 45$

$x = 5$ ✓

⑧ $3x - 11 = 1$

$3x = 1 + 11$

$3x = 12$

$x = 3 \div 12$

$x = 4$ ✓

⑨ $4x + 8 = 44$

$4x = 44 - 8$

$4x = 36$

$x = 36 \div 4$

$x = 9$ ✓

⑩ $2x - 13 = 11$

$2x = 11 + 13$

$2x = 24$

$x = 24 \div 12$

$x = 12$ ✓

Gwaith Dosbarth 21/5/14

Datrysuch

1. $2x + 8 = 12$
$6x = 12 - 8$
$6x = 4$
$x = 4 \div 2$
$x = 2$

2. $9x - 3 = 42$
$9x = 42 + 3$
$9x = 45$
$x = 45 \div 9$
$x = 5$

3. $3x + 5 = 16$
$3x = 16 - 5$
$3x = 11$
$x = 11 \div 3$
$x = 3$ a 2 dim hlwm, neu $\frac{2}{3}$ ← newid hwn

4. $5x - 7 = 11$
$5x = 11 + 7$
$5x = 18$
$x = 18 \div 5$
$x = 3\frac{3}{5}$

YMARFER:

① $9x + 1 = 28$
$9x = 28 - 1$
$9x = 27$
$x = 27 \div 9$
$x = 3$ ✓

② $5x - 4 = 21$
$5x = 21 + 4$
$5x = 25$
$x = 25 \div 5$
$x = 5$ ✓

③ $6x + 7 = 37$
$6x = 37 - 7$
$6x = 30$
$x = 30 \div 6$
$x = 5$ ✓

④ $9x - 8 = 72$
$9x = 72 + 8$
$9x = 80$
$x = 80 \div 9$
$x = 8\frac{8}{9}$ ✓

⑤ $2x + 7 = 15$
$2x = 15 - 7$
$2x = 8$
$x = 8 \div 2$
$x = 4$ ✓

⑥ $2x - 4 = 5$
$2x = 5 + 4$
$2x = 9$
$x = 2 \div 9$
$x = 4\frac{1}{2}$ ✓

⑦ $3x + 4 = 14$
$3x = 14 - 4$
$3x = 10$
$x = 13 \div 10$
$x = 3\frac{1}{3}$ ✓

⑧ $6x + 2 = 15$
$6x = 15 - 2$
$6x = 13$
$x = 6 \div 13$
$x = 2\frac{1}{6}$ ✓

⑨ $9x - 3 = 11$
$9x = 11 + 3$
$9x = 14$
$x = 14 \div 9$
$x = 1\frac{5}{9}$ ✓

⑩ $5x + 8 = 17$

$5x = 17 - 8$

$5x = 9$

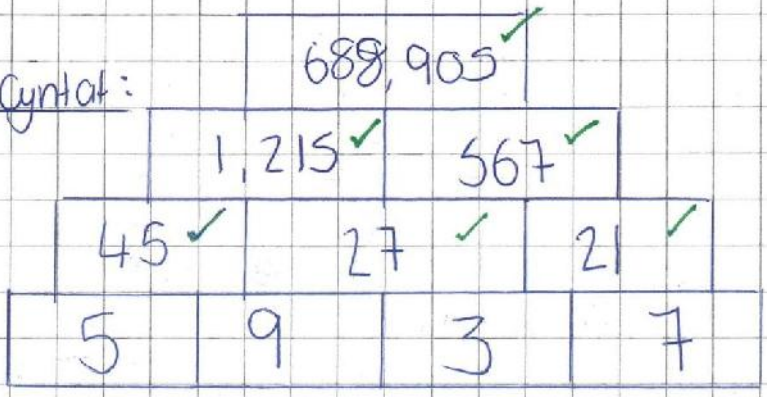
$x = 9 \div 5$

$x = 1\frac{4}{5}$ ✓

---

Gwaith Dosbarth 23.5.14

Cwrs Cyntaf:




Enghreifftiau: Datrysiadau:

① $5x - 1 = 3x + 5$

$5x - 3x = 5 + 1$

$2x = 6$

$x = 6 \div 2$

$x = 3$

② $5x + 1 = 2x + 13$

$5x - 2x = 13 - 1$

$3x = 12$

$x = 12 \div 3$

$x = 4$

# YMARFER DATRYSWCH

① $7x - 2 = 2x + 8$

$7x - 2x = 8 + 2$

$5x = 10$

$x = 10 \div 5$

$x = 2$ ✓

② $6x + 1 = 4x + 21$

$6x - 4x = 21 - 1$

$2x = 20$

$x = 20 \div 2$

$x = 10$

③ $7x - 2 = 5x + 8$ ✓

$7x - 5x = 8 + 2$ ✓

$2x = 10$ ✓

$x = 10 \div 2$ ✓

$x = 5$ ✓

④ $9x - 10 = 4x + 5$ ✓

$9x - 4x = 5 + 10$ ✓

$5x = 15$ ✓

$x = 5 \div 15$ ✓

$x = 3$ ✓

⑤ $6x + 2 = 10 - 2x$ ✓

$6x + 2x = 10 - 2$ ✓

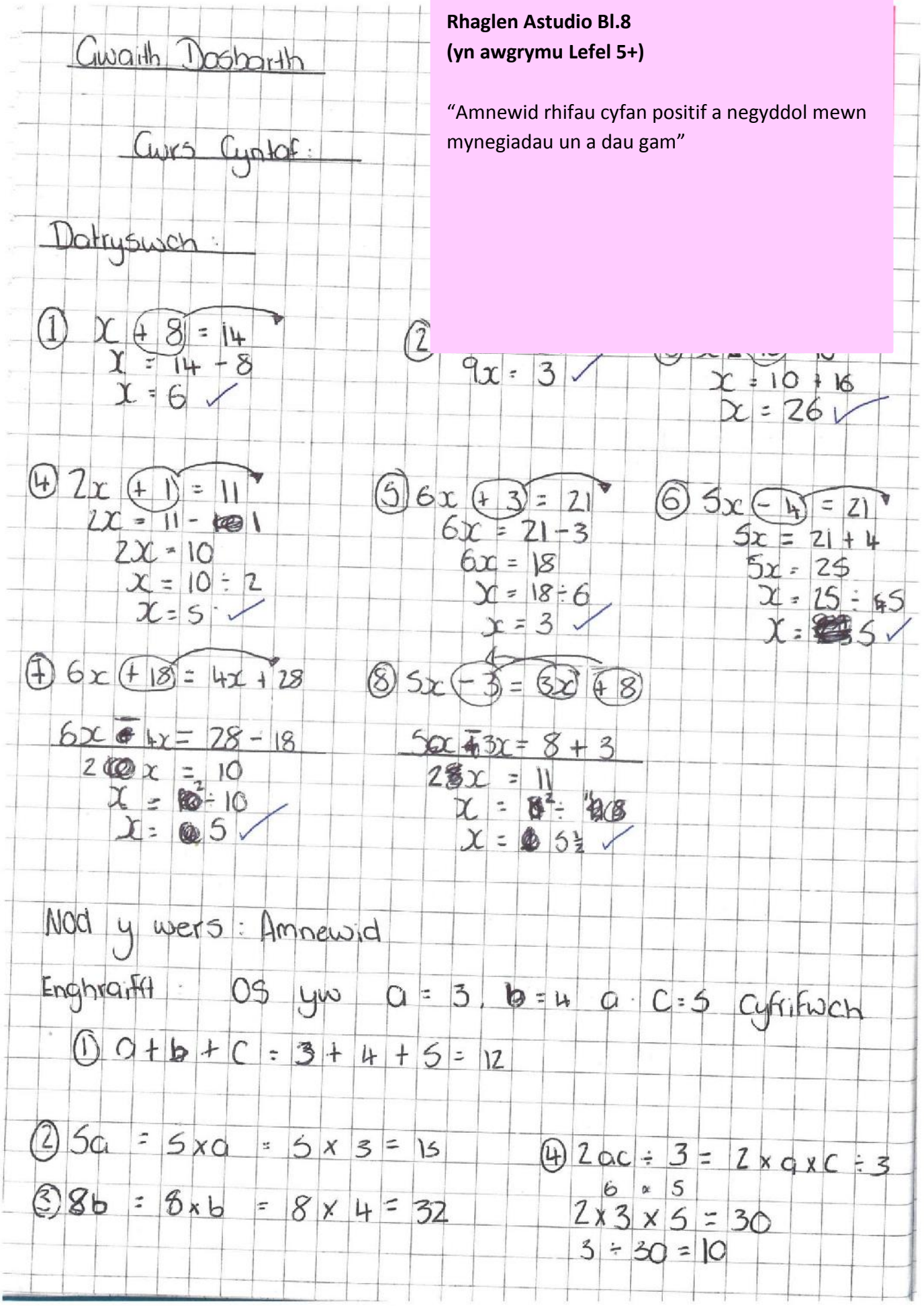
$8x = 8$ ✓

$x = 8 \div 8$ ✓

$x = 1$ ✓

**Rhaglen Astudio Bl.8**
**(yn awgrymu Lefel 5+)**

"Amnewid rhifau cyfan positif a negyddol mewn mynegiadau un a dau gam"



⑤ $5a + 3b = 5 \times a + 3 \times b$

$5 \times 3 + 3 \times 4 = 27$
$15 \quad 12$

② OS gdy $a = 2$, $b = 6$ a $C = 7$ cyfrowych

① $9a = 9 \times a \quad 9 \times 2 = 18$

② $a + b - C = 2 + 6 - 7 = 1$

③ $6C = 6 \times C = 6 \times 7 = 42$

④ $5b + 8c = 5 \times b + 8 \times C \quad 5 \times 6 + 8 \times 7 = 86$
$30 \quad 56$

⑤ $\frac{2abC}{8} \quad \frac{2 \times a \times b \times C}{8} \quad 2 \times 2 \times 6 \times 7 \div 8 = 21$
$4 \quad 24 \quad 168$

⑥ $4a + 9c = 4 \times a + 9 \times C = 4 \times 2 + 9 \times 7 = 71$
$8 \quad 63$

⑦ $10c - 5a = 10 \times C - 5 \times a = 10 \times 7 - 5 \times 2 = 60$
$70 \quad 10$

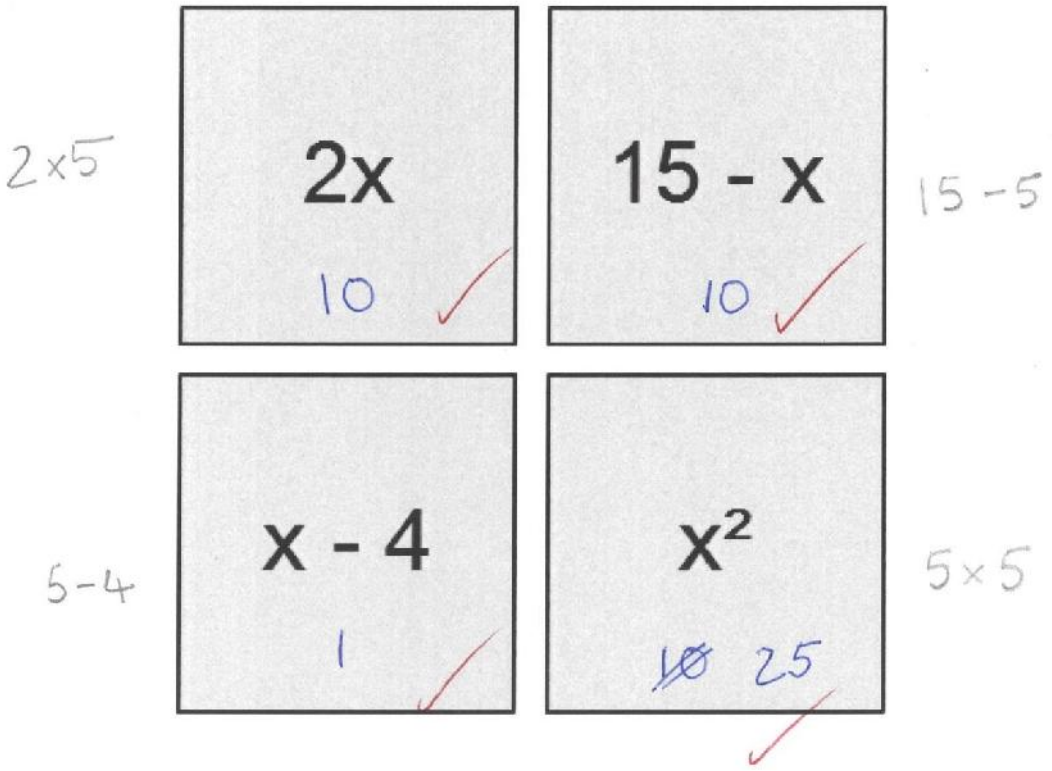
⑧ $b^2 = b \times b = 6 \times 6 = 36$

⑨ $2(C-a)^2 \quad 7 - 2 = 5^2$
$25$
$50$

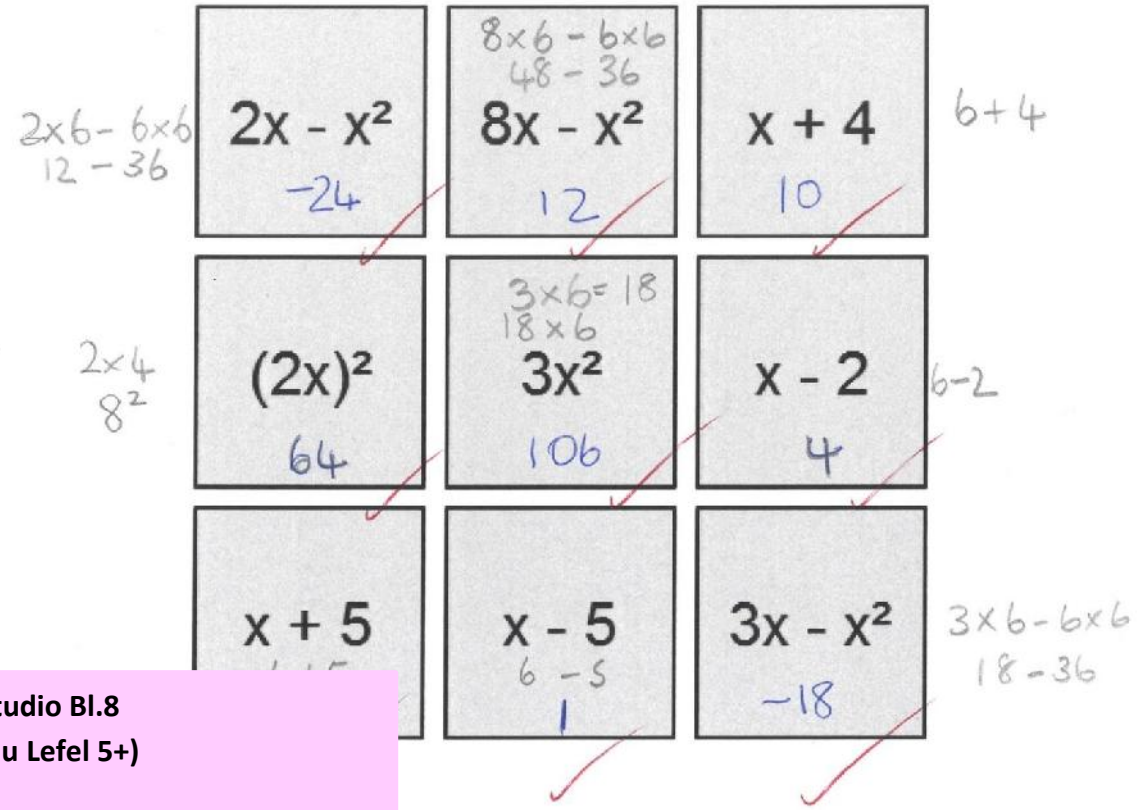
10 $C^2 + 2 \times a^2 \quad 7 \times 7 = 49$

$49 + 8 = 57$

**Os yw x = 5, beth yw gwerth :**



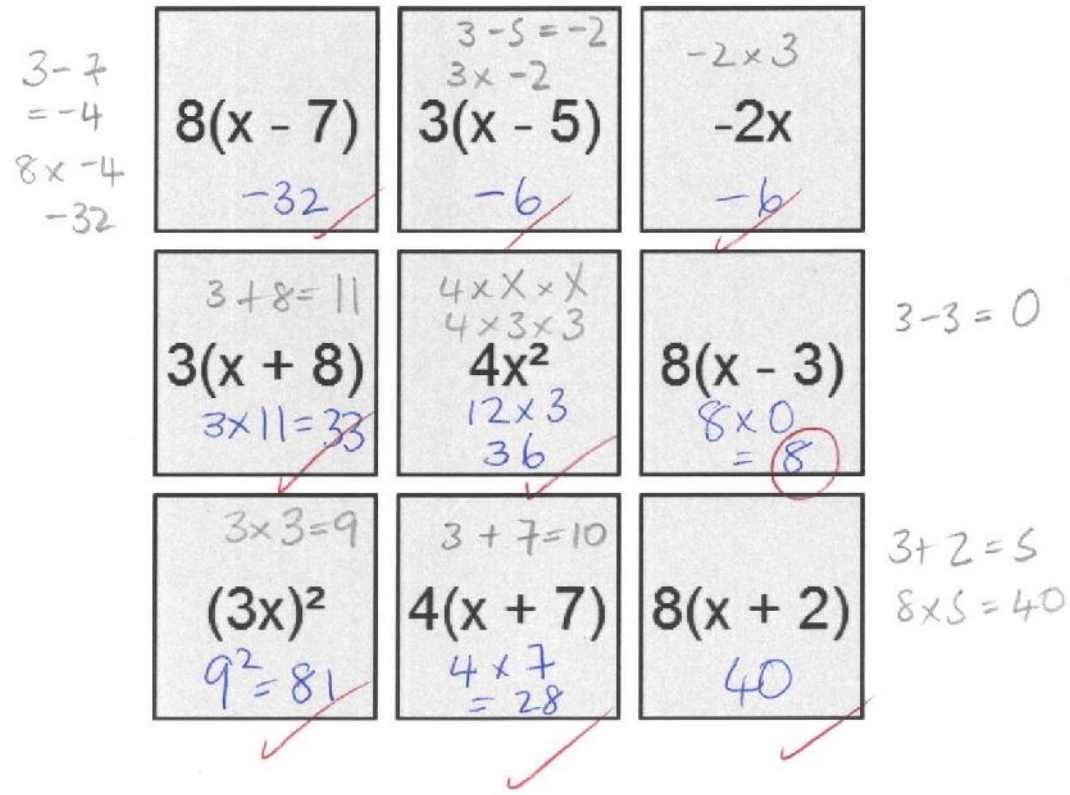

**Os yw x = 6, beth yw gwerth :**



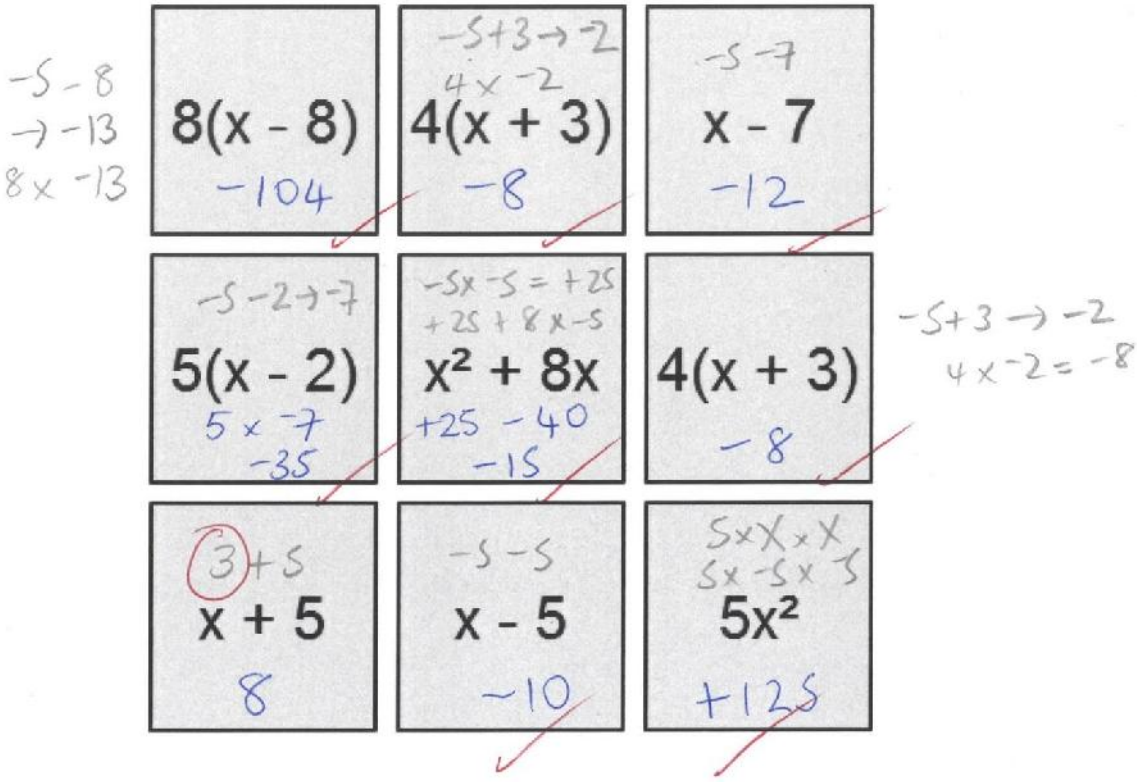

**Rhaglen Astudio Bl.8**
**(yn awgrymu Lefel 5+)**

"Amnewid rhifau cyfan positif a negyddol mewn mynegiadau un a dau gam"

## Os yw x =3, beth yw gwerth :




## Os yw x =-5, beth yw gwerth :



Gwaith Dosbarth

5/9/14

Cwrs Cyntaf

7200
120 + 108000
960 115200
000 1

| | | |
|---|---|---|
| 11,52000 ✓ | | |
| 1200 ✓ | 960 ✓ | |
| 30 ✓ | 40 ✓ | 2 |
| 6 | 5 | 8 |

**Lefel 6**

"Llunio siartiau cylch"

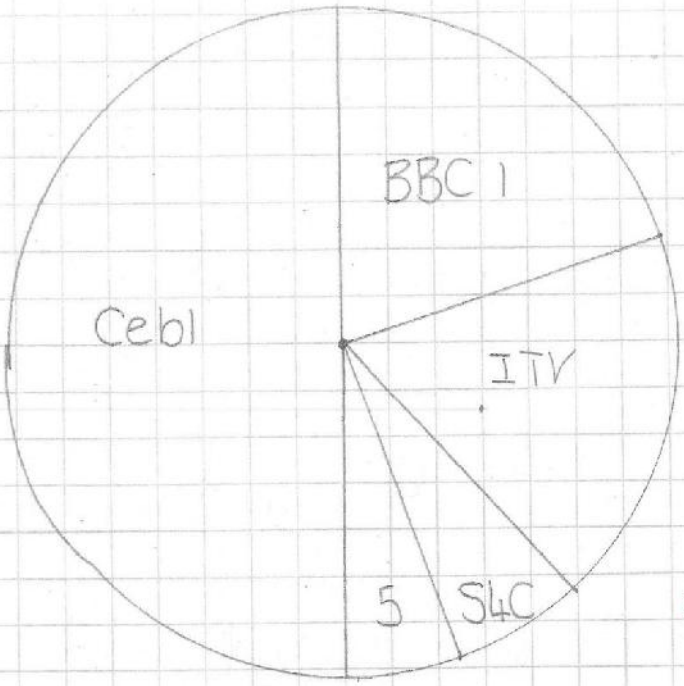
Nod y wers: llunio siartiau cylch heb gyfrifiannell

✓

| Hoff Sianel deledu | Amlder | ongl |
|---|---|---|
| BBC 1 | 12 ×6 → | 72° |
| ITV | 11 ×6 → | 66° |
| S4C | 4 ×6 → | 24° |
| 5 | 3 ×6 → | 18° |
| Cebl | 30 → | 180° |
| | 60 | |

Lluniwch siart gylch o'r wybodaeth

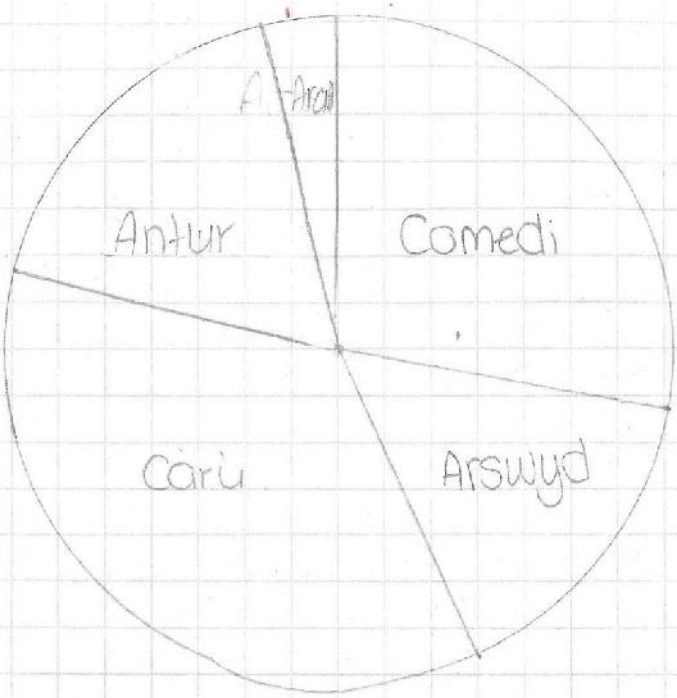
360 → 6x




2/

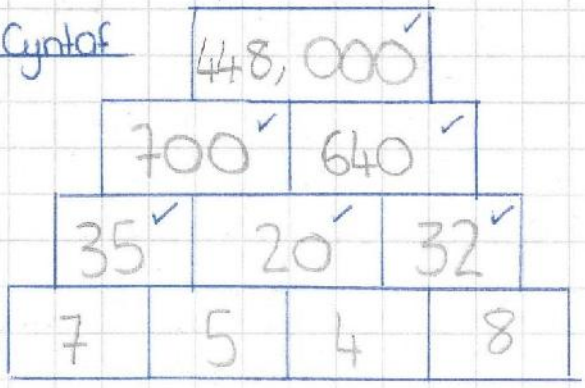
| Hoff fath o ffilm | Amider | angl |
|---|---|---|
| Comedi | 25 →×4 | 100° |
| Arswyd | 14 →×4 | 56° |
| Caru | 32 →×4 | 128° |
| Antur | 17 →×4 | 68° |
| Arall | 2 →×4 | 8° |
| ✱ // // // | 90 | 360 |
| | ×4 | |

Llunio siart gylch o'r wybodaeth




Gwaith Dosbarth 9/9/14

Curs Cyntaf

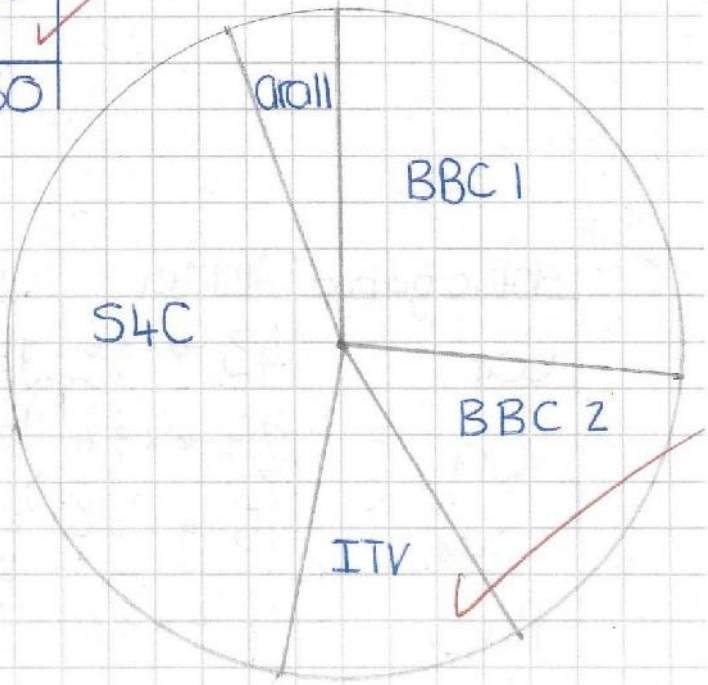



X

Nod y wers: Llunio siartiau cylch gyda ac heb gyfrifiannell

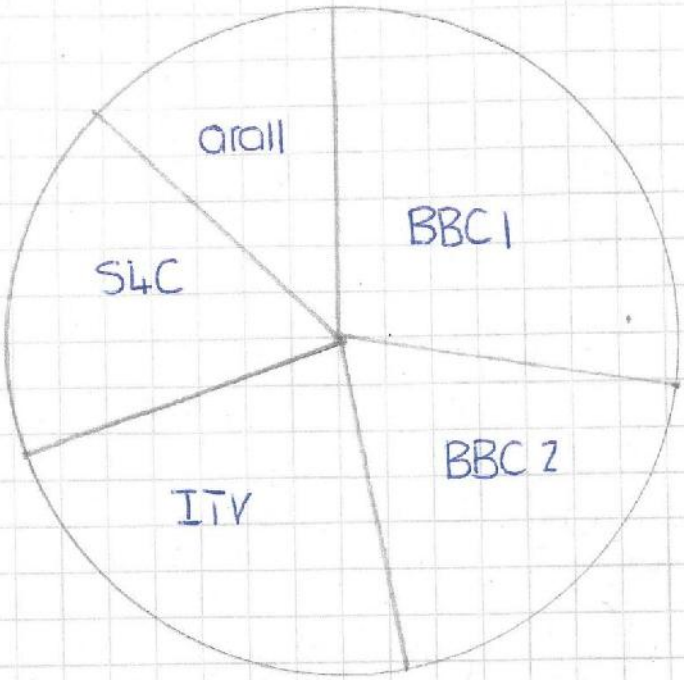
1 Heb gyfrifiannell lluniwch siart gylch o'r wybodaeth canlynol:

| Sianel | Amider | ongl |
|---|---|---|
| BBC 1 | 32 → ×3 | 96° |
| BBC 2 | 18 → ×3 | 54° |
| ITV | 14 → ×3 | 42° |
| S4C | 50 → ×3 | 150° |
| arall | 6 → ×3 | 18° |
| Cyfanswm | 120 | 360 |
| | ×3 | |




2 Cyda help gyfrifiannell lluniwch siart gylch or wybodaeth canlynol:

| Sianel | Amider | ongl |
|---|---|---|
| BBC 1 | 22 → ×4.5 | 99° |
| BBC 2 | 16 → ×4.5 | 72° |
| ITV | 18 → ×4.5 | 81° |
| S4C | 14 → ×4.5 | 63° |
| arall | 10 → ×4.5 | 45° |
| | 80 | 360 |




✓

3.

| Mathau gerbyd | Amlder | ongl |
|---|---|---|
| Car | 43 → x 3.6 | 155° |
| fan | 29 → x 3.6 | 104° |
| Lorri | 15 → x 3.6 | 54° |
| Bws | 9 → x 3.6 | 32° |
| Arall | 4 → x 3.6 | 14° |
| | 100 | 360 |

3.6

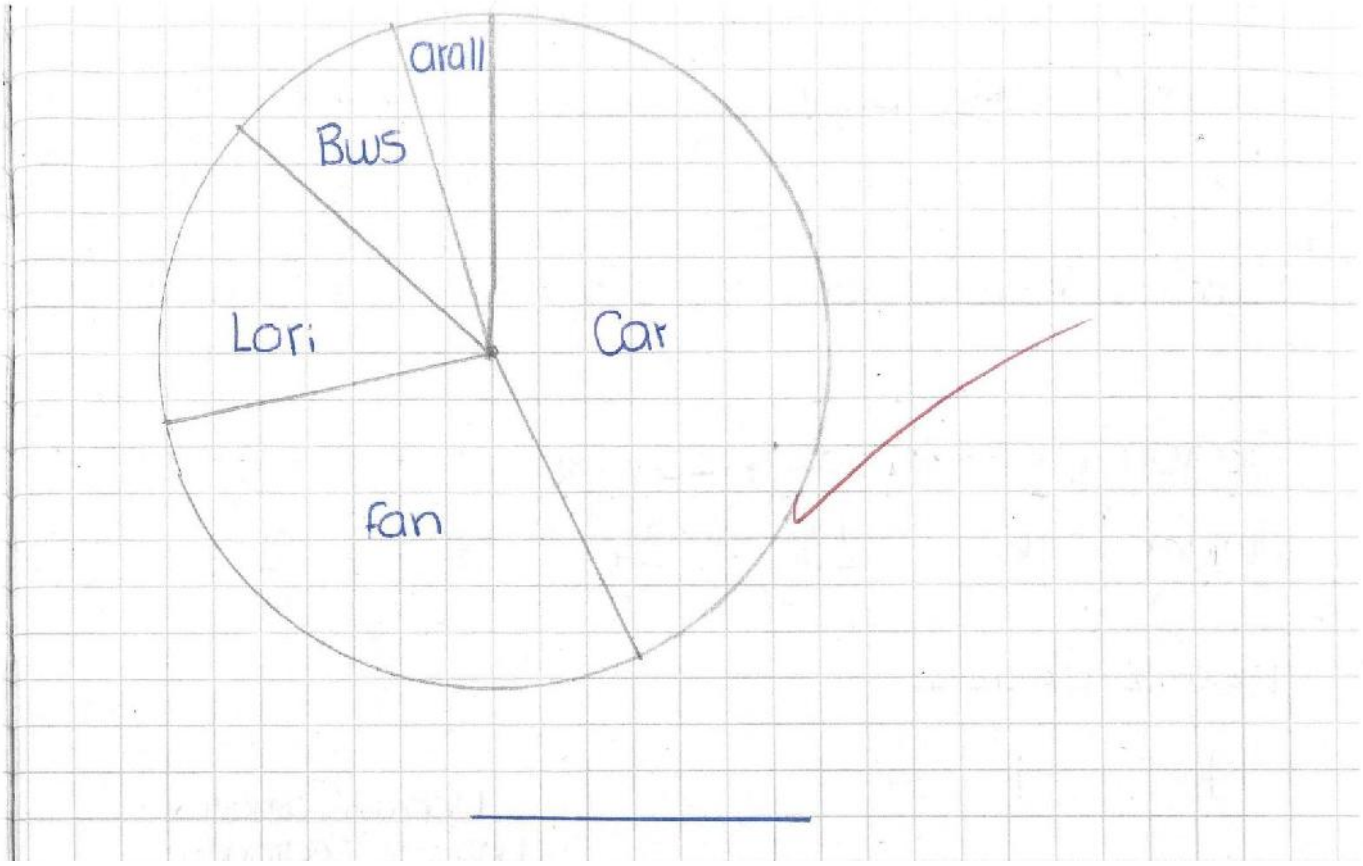
Dull

S

Dull arall

43 ÷ 100 x 360

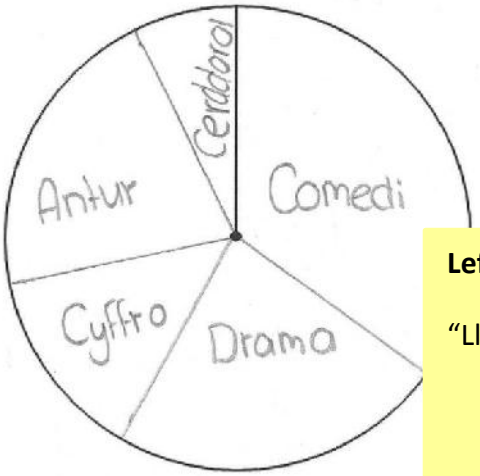
Mae hwn yn ddio lan i 359 achos rydyn ni wedi talgrynnu y rhifau ✓✓


arall
Bws
Lori
Car
fan

**Gwaith Cartref – Homework**

1. *Gofynnwyd i 60 o ddisgyblion blwyddyn 9 beth oedd ei hoff math o ffilm. Cwblhewch y tabl yma a lluniwch siart gylch.*
   *60 pupils from year 8 were asked what was their favourite type of film. Complete the table and draw a pie chart.*

| Ffilmiau/Film | Amlder/Ferequency | Ongl/Angle |
|---|---|---|
| Comedi/comedy | 21 x 6 | 126° |
| Drama/drama | 14 x 6 | 84° |
| cyffro /thriller | 8 x 6 | 48° |
| Antur/adventure | 12 x 6 | 72° |
| Cerddorol/musical | 5 x 6 | 30° |
| Cyfanswm/Total | 60 | 360° |

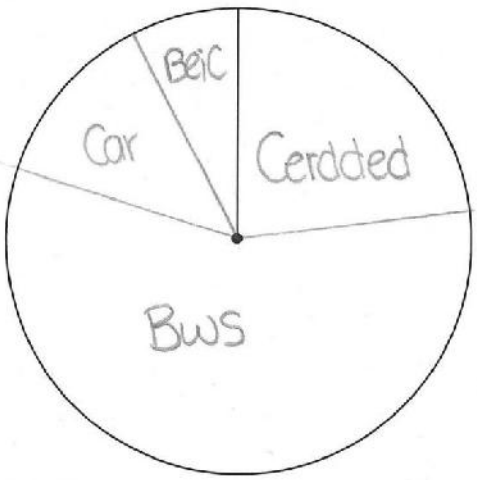



**Lefel 6**

"Llunio siartiau cylch"

2. *Gofynnwyd i ddisgyblion 9 sut oedden nhw'n teithio i'r ysgol fel arfer. Cwblhewch y tabl yma a lluniwch siart gylch.*
   *Pupils from 9 were asked how they travel to school usually. Complete the following table and draw a pie chart.*

| Dull o deithio / Travel Method | Amlder/Frequency | Ongl/Angle |
|---|---|---|
| Cerdded/ Walk | 33 x2.5 | 83° |
| Bws/Bus | 82 x 2.5 | 205° |
| car /Car | 18 x 2.5 | 45° |
| Beic/Bike | 11 x 2.5 | 28° |
| Cyfanswm/Total | 144 | 360° |




↳ Pam mae hwn yn adio i 361?
Oherwydd rydw i wedi talgrynnu y rhifau

Ardderchog!

Nod y wers: Llunio diagramau amlder

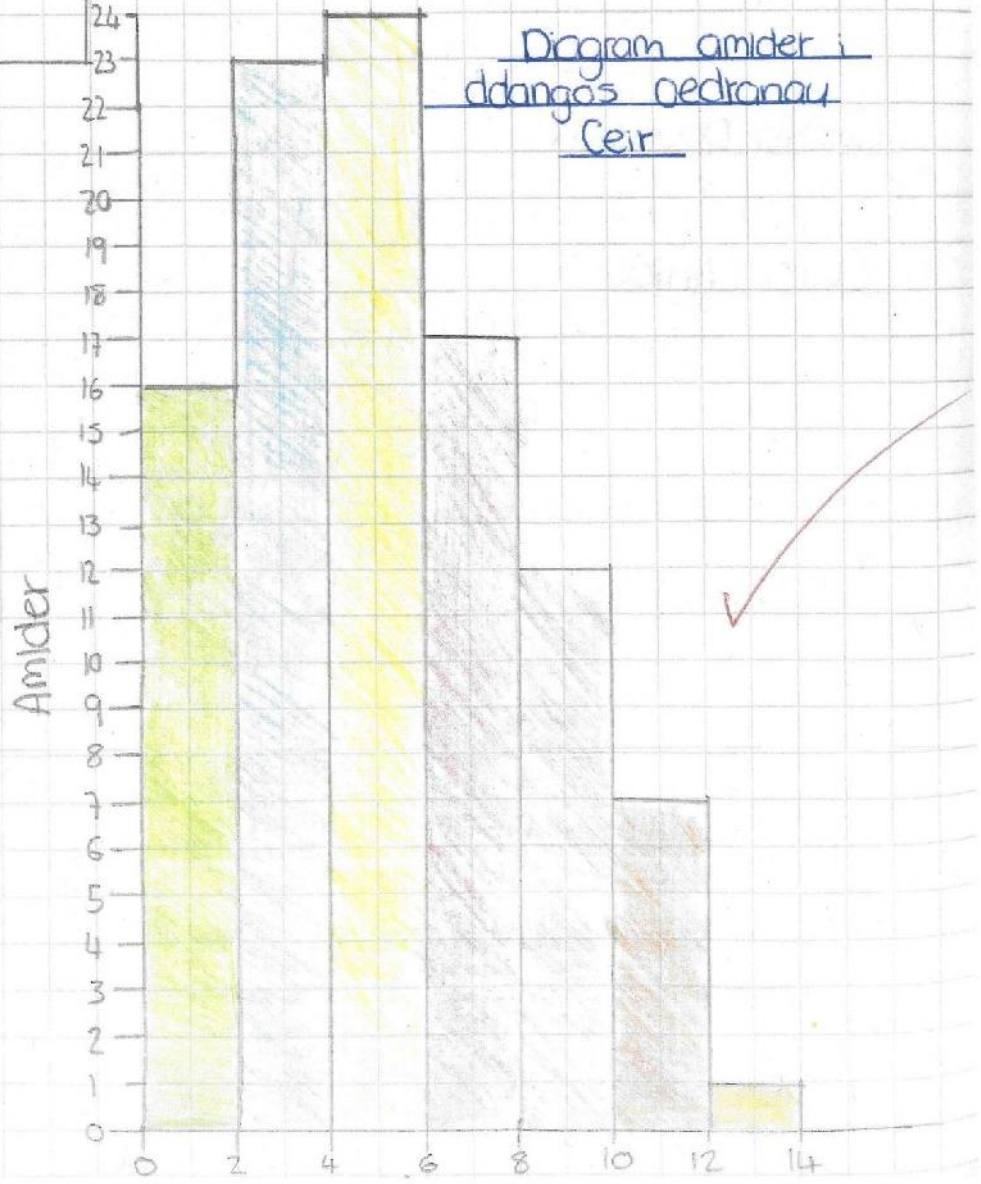
**Lefel 6**

"Llunio diagramau amlder"

1/ Cofnododd Rebecca oedran 100 o ge

| Oedran (ai) | $0 \leq a < 2$ | $2 \leq a < 4$ | $4 \leq a < 6$ |
|---|---|---|---|
| Amlder | 16 | 23 | 24 |

| $10 \leq a < 12$ | $12 \leq a < 14$ |
|---|---|
| 7 | 1 |



Gwaith Dosbarth 12/9/14

Cwrs Cynlaf

| | | | |
|---|---|---|---|
| 5,598,720 | | | |
| 2,880 ✓ | | 1,914 ✓ | |
| 40 ✓ | 72 | 27 ✓ | |
| 5 | 8 | 9 ✓ | 3 |

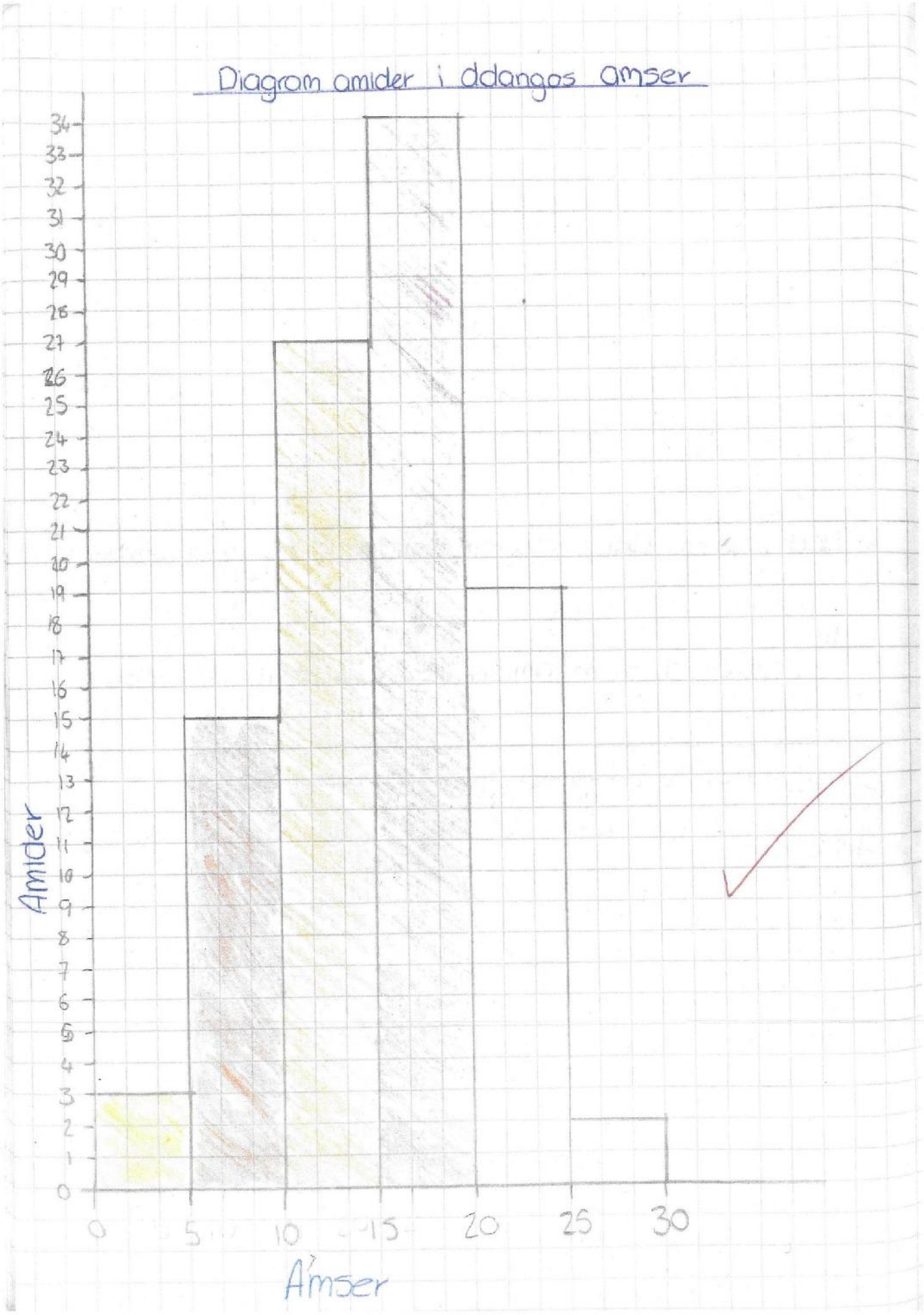
X

Ble mae dy ddull?

Nod y wers: Llunio diagram amlder a polygon amlder

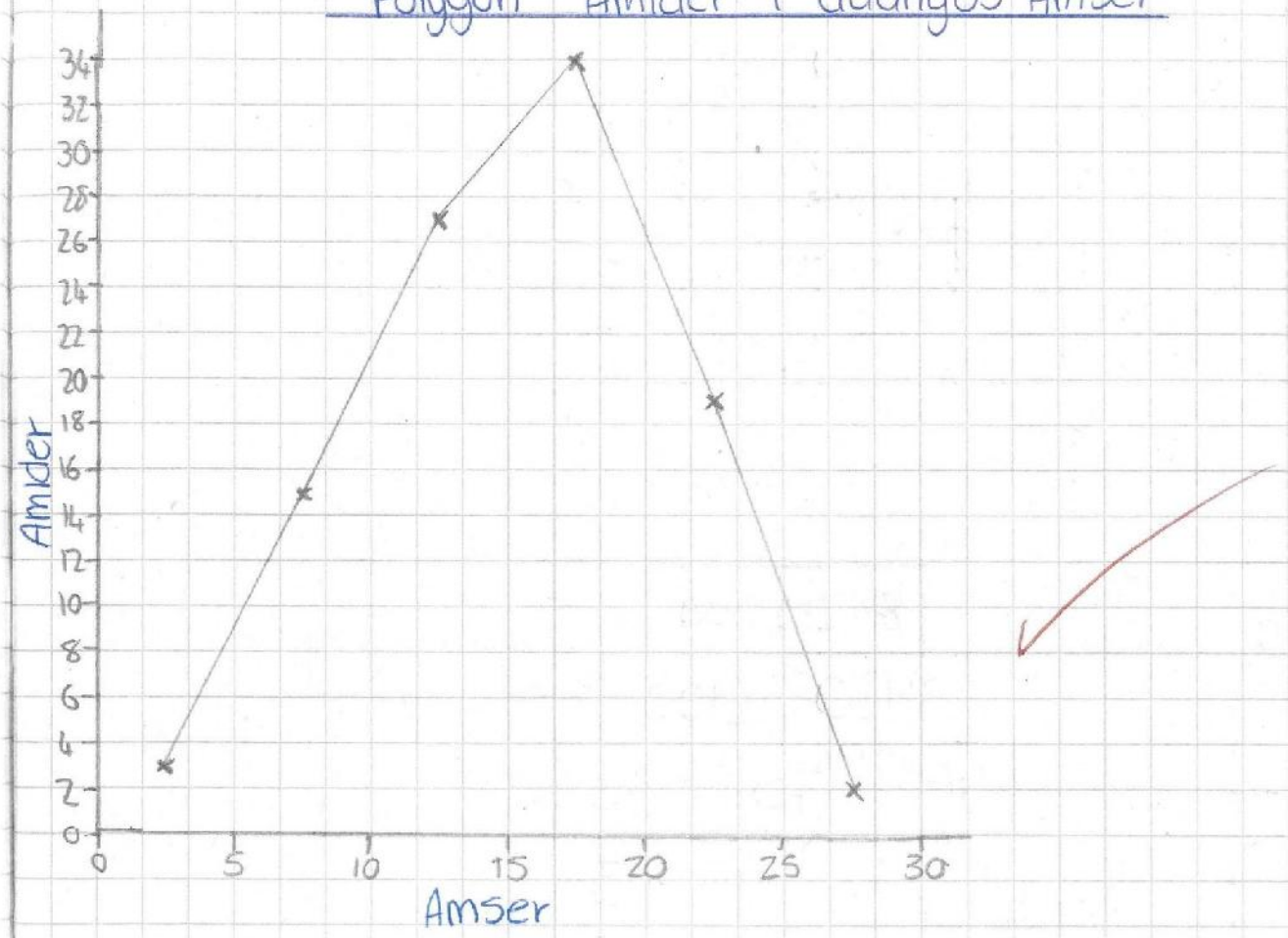
1 Lluniwch diagram amlder o'r wybodaeth canlynol:

| Amser (t) | $0 \le t < 5$ | $5 \le t < 10$ | $10 \le t < 15$ | $15 \le t < 20$ | $20 \le t < 25$ | $25 \le t < 30$ | |
|---|---|---|---|---|---|---|---|
| Amlder | 3 | 15 | 27 | 34 | 19 | 2 | |


Diagram amider i ddangos amser
Amider
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
0
5
10
15
20
25
30
Amser

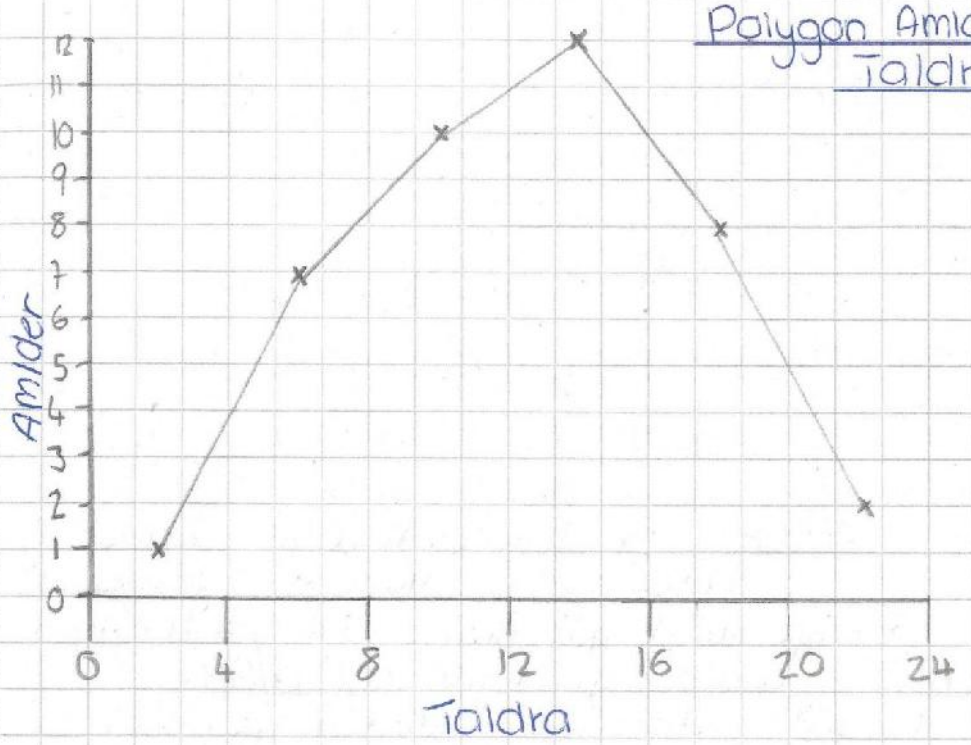
2. Lluniwch polygon amlder o'r wybodaeth uchod

## Polygon Amlder i ddangos Amser



① Lluniwch bolygon amlder o'r wybodaeth canlynol:

| Taldra (h) | $0 \le h < 4$ | $4 \le h < 8$ | $8 \le h < 12$ | $12 \le h < 16$ | $16 \le h < 20$ | $20 \le h < 24$ |
|---|---|---|---|---|---|---|
| Amlder | 1 | 7 | 10 | 12 | 8 | 2 |

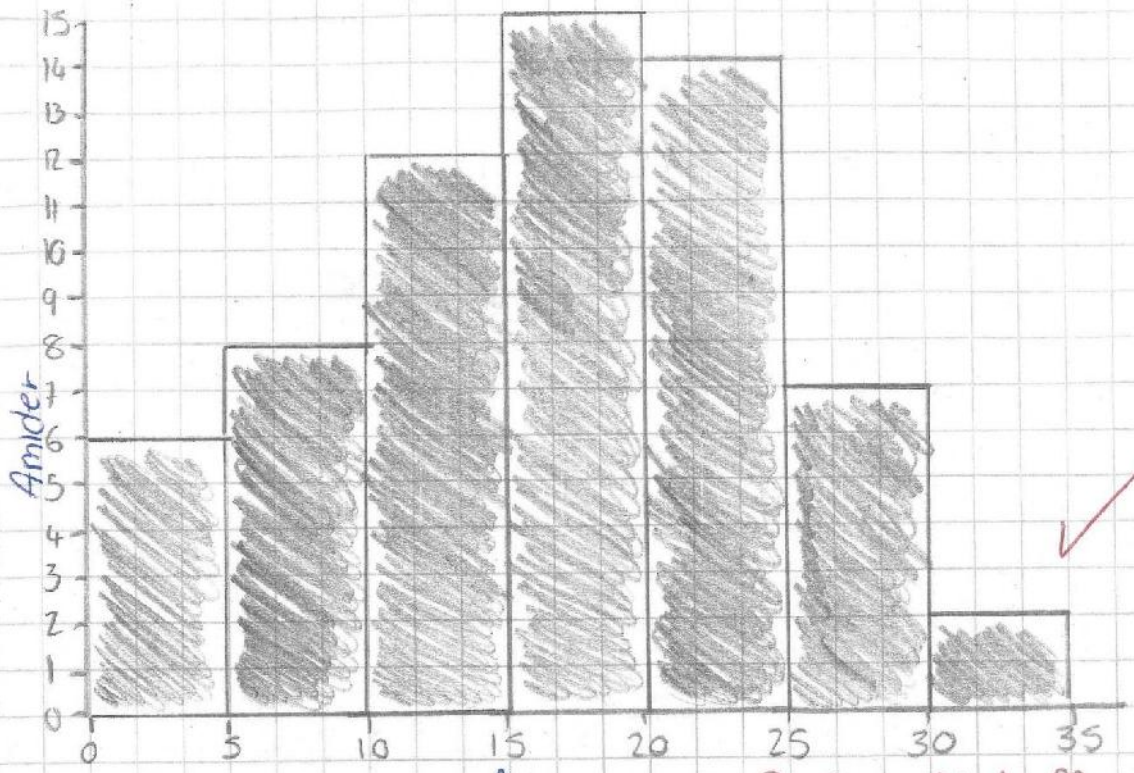



Polygon Amlder i ddangos Taldra

② Lluniwch ddiagram amlder o'r wybodaeth canlynol:

| Amser (t) | $0 \le t < 5$ | $5 \le t < 10$ | $10 \le t < 15$ | $15 \le t < 20$ | $20 \le t < 25$ | $25 \le t < 30$ | $30 \le t < 35$ | |
|---|---|---|---|---|---|---|---|---|
| Amlder | 6 | 8 | 12 | 15 | 14 | 7 | 2 | |

# Diagram Amlder i ddangos Amser




* Rwyt wedi dodd siartiau cylch ac yn lluniio'n hyderus.
* Rwyt hefyd yn lluniio diagram / polygon amlder yn hyderus. 17/9/14

Gwaith Dosbarth

Targed: Cofia siorhau dy fod yn cofio'r gwahaniaeth rhwng Prawf.

Cwrs Cyntaf

| | 700 | 60 | 8 |
|---|---|---|---|
| 300 | 210000 | 18000 | 2400 |
| 60 | 42000 | 3600 | 480 |

X

| | | | |
|---|---|---|---|
| 276,480 | | | |
| 768 | 360 | | |
| 32 | 24 | 15 | |
| 4 | 8 | 3 | 5 |

```
  210000
   18000
    2400
   42000
    3600
     480
  276480
  1 1
```

Nod y wers: Cyfartaledd/Average

Mae yna tri math o Cyfartaledd: Cymedr, modd a Canolrif

(mean) (mode) (median)

① Darganfyddwch a) Cymedr B) modd c) canolrif d) amrediad

7, 8, 4, 3, 5, 3, 2, 9, 2, 7, 7.

2, 2, 3, 3, 4, 5, 7, 7, 7, 8, 9

a) 5.2 (57 ÷ 11 =)

b) 7

c) 5

d) 7 (9 - 2)

**Lefel 5**

"Defnyddio cymedr data arwahanol"

② a) cymedr B) modd d

16, 27, 27, 34, 34, 58

27 28 29 30 31 32 33 34

a) ~~33.4~~ ✓

B) 27, 34 ✓

C) 30.5 ✓

d) 42 ✓

③ a) cymedr b) Modd c) canolrif d) amrediad

101, 102, 103, 103, 103, 104, 105, 105

a) 103.3 ✓

b) 103 ✓

c) 103 ✓

d) 4 ✓

Gwaith Dosbarth 19/9/14

Cwrs Cyntaf: Darganfyddiadau a) modd b) Cymedr c) amrediad d) Canolrif

1, 5, 5, 6, 7, 8, 8, 9, 9, 9

a) 9 ✓

b) 6.7 ✓

c) 8 ✓

d) 7.5 ✓

Nod y wers: Darganfod Cymedr pan mae'r data mewn tabl.

1/ Darganfyddiadau Cymedr y Canlynol:

| Taldra blodyn | Amlder |
|---|---|
| $100 \leq x < 110$ (105) | x 6 = 630 |
| $110 \leq x < 120$ (115) | x 13 = 1495 |
| $120 \leq x < 130$ (125) | x 35 = 4375 |
| $130 \leq x < 140$ (135) | x 5 = 675 |
| | (59) |

Cymedr - 630 + 1495 +

4375 + 675 = 7175

7175 ÷ 59 = 121.6

2. Darganfyddwch y cymedr o'r canlynol:

| Taldra blodyn | Amlder |
|---|---|
| $100 \leq x < 110$ | $\times 8 = 840$ |
| $110 \leq x < 120$ | $\times 12 = 1380$ |
| $120 \leq x < 130$ | $\times 24 = 3000$ |
| $130 \leq x < 140$ | $\times 6 = 810$ |
| | 50 |

Cymedr: 840 + 1380 + 3000 + 810 = 6030

6030 ÷ 120.6

3. Darganfyddwch y cymedr o'r canlynol:

| Taldra blodyn | Amlder |
|---|---|
| $60 \leq x < 80$ | $\times 12 = 840$ |
| $80 \leq x < 100$ | $\times 21 = 1890$ |
| $100 \leq x < 120$ | $\times 46 = 5060$ |
| $120 \leq x < 140$ | $\times 11 = 1430$ |
| | 90 |

Cymedr: 840 + 1890 + 5060 + 1430 = 9220

9220 ÷ 90 = 102.4

Gwaith Dosbarth

23/9/14

Cwrs Cyntaf

| | | | |
|---|---|---|---|
| 96,768 ✓ | | | |
| 252 ✓ | 384 ✓ | | |
| 21 ✓ | 12 ✓ | 32 ✓ | |
| 7 | 3 | 4 | 8 |

(X)

Nod y wers : Cyfartaleddau

1/ Darganfyddwch a) Cymedr b) Modd c) canolrif d) Amrediad

2 3 4 5 5 5 5 6 7 7 8 8

a) 5.4 ✓

B) 5 ✓

c) 5 ✓

d) 6 ✓

② Darganfyddwch y Cymedr

| HYD | AMIDER |
|---|---|
| $54 \leq \underset{55}{x} < 56$ | × 4 = 220 |
| $56 \leq \underset{57}{x} < 58$ | × 9 = 513 |
| $58 \leq \underset{59}{x} < 60$ | × 15 = 885 |
| $60 \leq \underset{61}{x} < 62$ | × 3 = 183 |
| | 31 |

220 + 513 + 885 + 183 = 1801

1801 ÷ 31 = 58.1 mm

3. Darganfyddwch y cymedr

| HYD | AMIDER |
|---|---|
| $25 \leq \underset{27.5}{x} < 30$ | × 4 = 110 |
| $30 \leq \underset{32.5}{x} < 35$ | × 20 = 650 |
| $35 \leq \underset{37.5}{x} < 40$ | × 16 = 600 |
| $40 \leq \underset{42.5}{x} < 45$ | × 18 = 765 |
| $45 \leq \underset{47.5}{x} < 50$ | × 2 = 95 |
| | 60 |

110 + 650 + 600 + 765 + 95 = 2220

2220 ÷ 60 = 37 mm

Gwaith Dosbarth

24/9/14

Gwrs Cyntaf

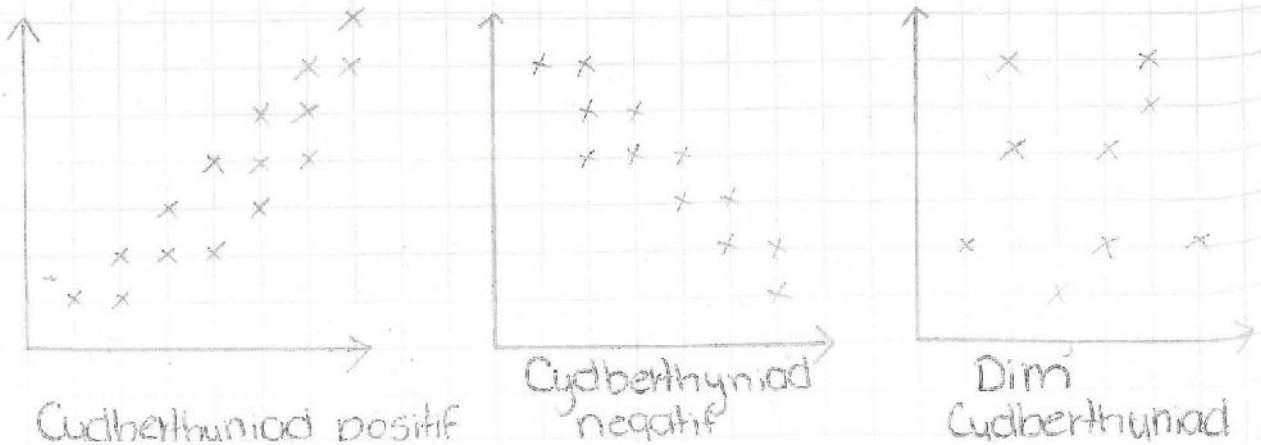
| | | | |
|---|---|---|---|
| 3,779,136 | | | |
| 1,944 | 1,944 | | |
| 36 | 54 | 36 | |
| 6 | 6 | 9 | 4 |

**Lefel 6**

"Llunio a dehongli diagramau gwasgariad"

Nod y wers: Diagramau gwasgariad

- Mae yna tri math o Diagram gwasgariad

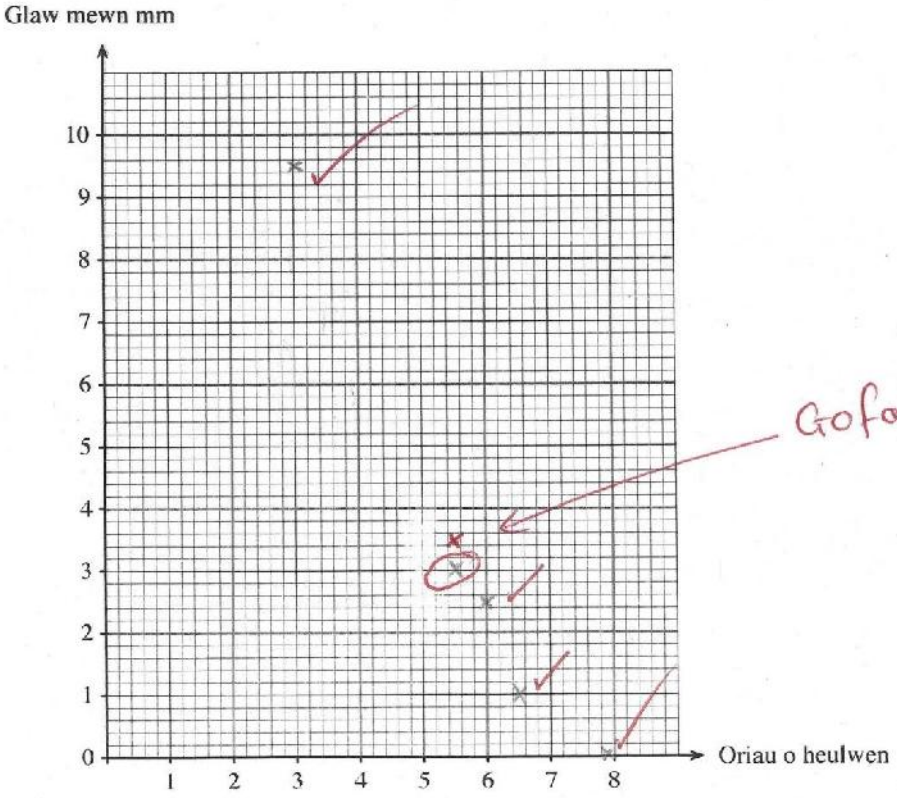


Examiner only
*Arholwr yn unig*

**13.** Cafodd nifer y milimetrau o law a nifer yr oriau o heulwen eu cofnodi gan grŵp o fyfyrwyr bob dydd Llun am 5 wythnos. Mae'r tabl isod yn dangos y canlyniadau.

| Nifer yr oriau o heulwen | 5·5 | 6·5 | 6·0 | 7·9 | 3·0 |
|---|---|---|---|---|---|
| Milimetrau o law | 3·5 | 1·0 | 2·5 | 0·0 | 9·5 |

*(a)* Ar y papur graff isod lluniwch ddiagram gwasgariad o'r canlyniadau hyn. [2]




*(b)* Disgrifiwch y cydberthyniad rhwng nifer yr oriau o heulwen a swm y glaw.

Cydberthyniad negatif (S) negatif

[1]

Yn Saesneg → negative
Yn Gymraeg → negatif.

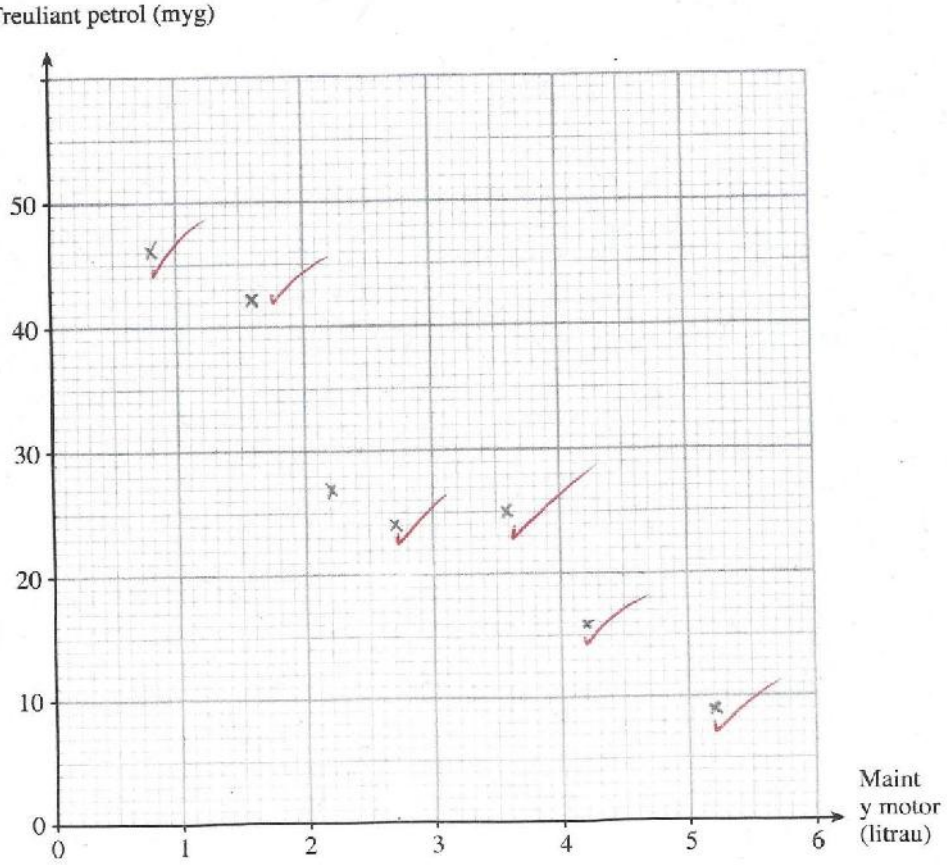
(7B5-51) **Trosodd.**

Examiner only
*Arholwr yn unig*

**20.** Mae'r tabl yn dangos maint y motor (litrau) a threuliant petrol (milltiroedd y galwyn) ar gyfer pob un o 7 car.

| Maint y motor (litrau) | 1·6 | 2·7 | 4·2 | 2·2 | 5·2 | 0·8 | 3·6 |
|---|---|---|---|---|---|---|---|
| Treuliant petrol (milltiroedd y galwyn) | 42 | 24 | 16 | 27 | 9 | 46 | 25 |

*(a)* Ar y papur graff a roddwyd, lluniadwch ddiagram gwasgariad ar gyfer y wybodaeth hon. [2]



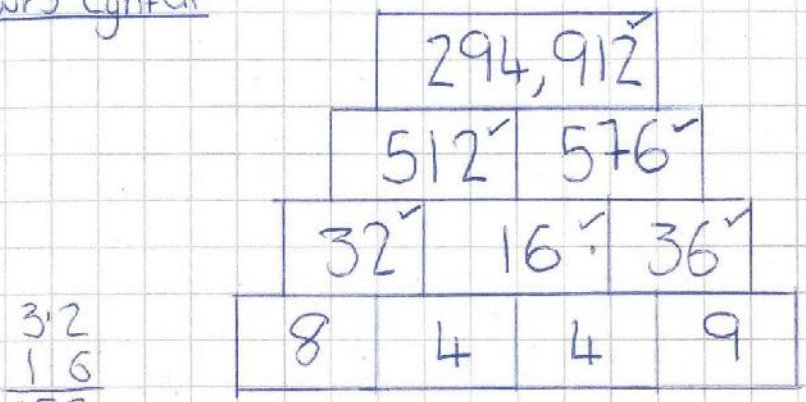

*(b)* Ysgrifennwch y math o gydberthyniad a ddangosir gan eich diagram gwasgariad.

Cydberthyniad negatif ✓ Da iawn Rwyt wedi cofio hedd'w ✓

[1]

Gwaith Dosbarth 26/9/14

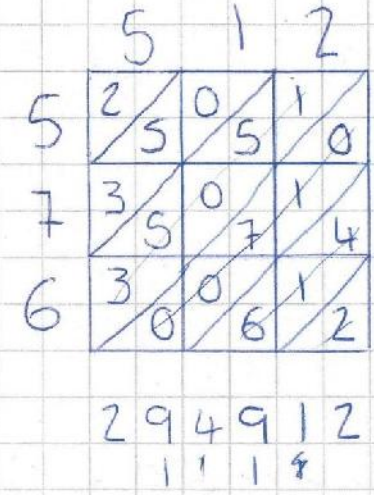
Cwrs Cyntaf










**Lefel 6**

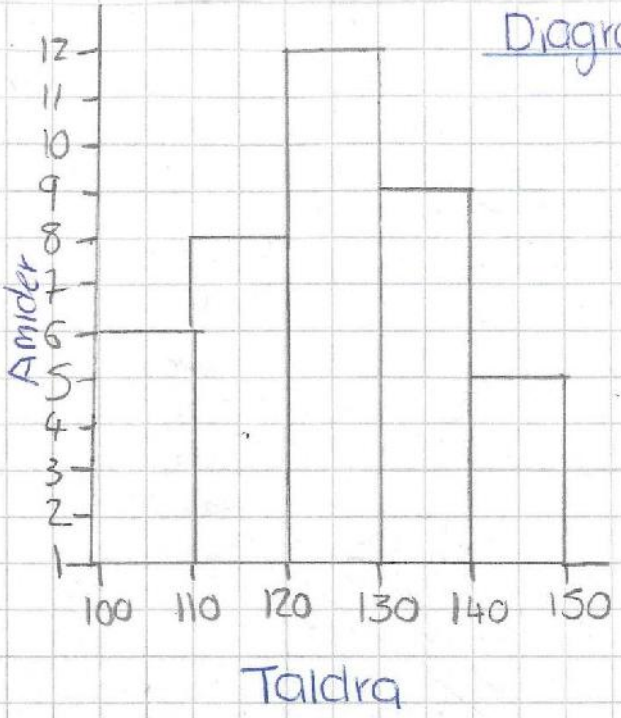
"Llunio diagramau amlder"

Nod y wers =

① Lluniwch ddiagram amlder or wybodaeth canlynol.

| Talcra | 100≤h<110 | 110≤h<120 | 120≤h<130 | 130≤h<140 | 140≤h<150 |
|---|---|---|---|---|---|
| Amlder | 6 | 8 | 12 | 9 | 5 |

Diagram amlder i ddangos Taldra




**Rhaglen Astudio Bl.9**
(yn awgrymu Lefel 6)

"Canfod y cymedr o dablau amledd wedi'u grwpio"

② Cyfrifwch y Cymedr

| Taldra (w) | Amlder | |
|---|---|---|
| $100 \leq h < 110$ (105) | × 6 = | 630 |
| $110 \leq h < 120$ (115) | × 8 = | 920 |
| $120 \leq h < 130$ (125) | × 9 = | 1125 |
| $130 \leq h < 140$ (135) | × 2 = | 270 |
| | 25 | |

Cymedr - 630 + 920 + 1125 + 270 = 2945

2945 ÷ 25 = 117.8 cm

Gwaith Dosbarth

30/9/14

Curs Cyntaf

2,963,526

2,353 | 1,

56 | 42

8 | 7

42
42
42
126

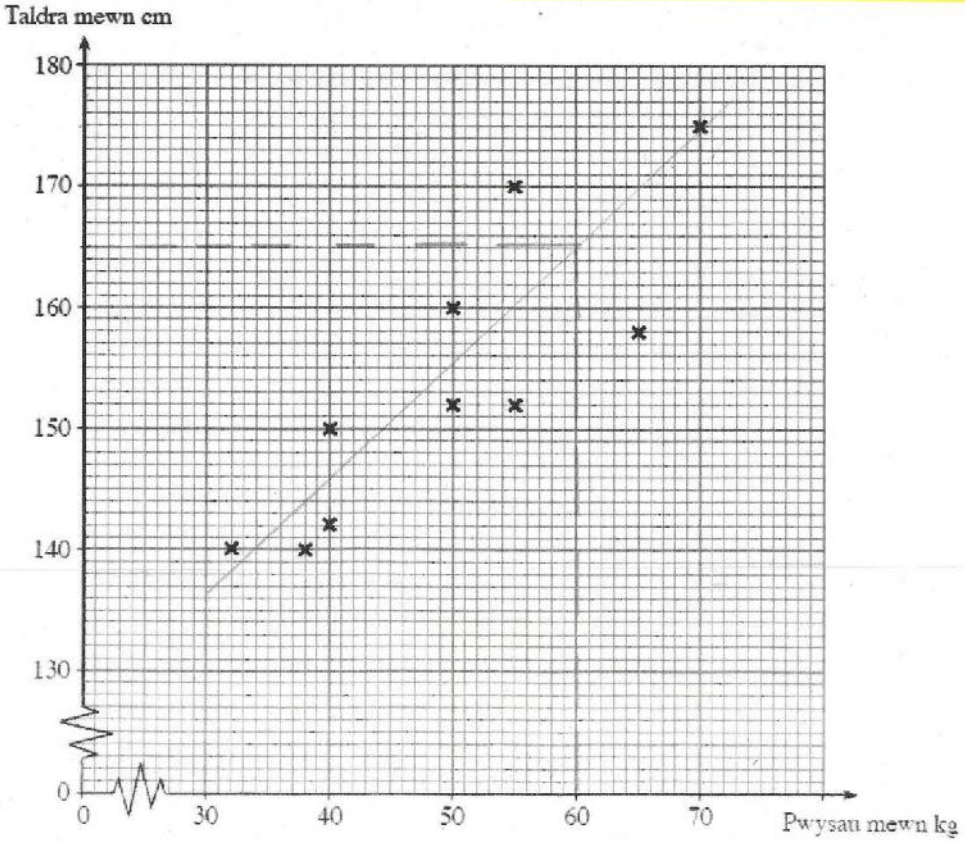
**Lefel 6**

"Llunio a dehongli diagramau gwasgariad"

(Noder : lluniwyd llinell ffit orau â'r llygad (nid y cymedr) felly ddim yn ddigon i gyfiawnhau lefel 7)

**Diagramau gwasg**

1. Mae'r diagram gwasgariad yn dangos y taldra, mewn
10 person.

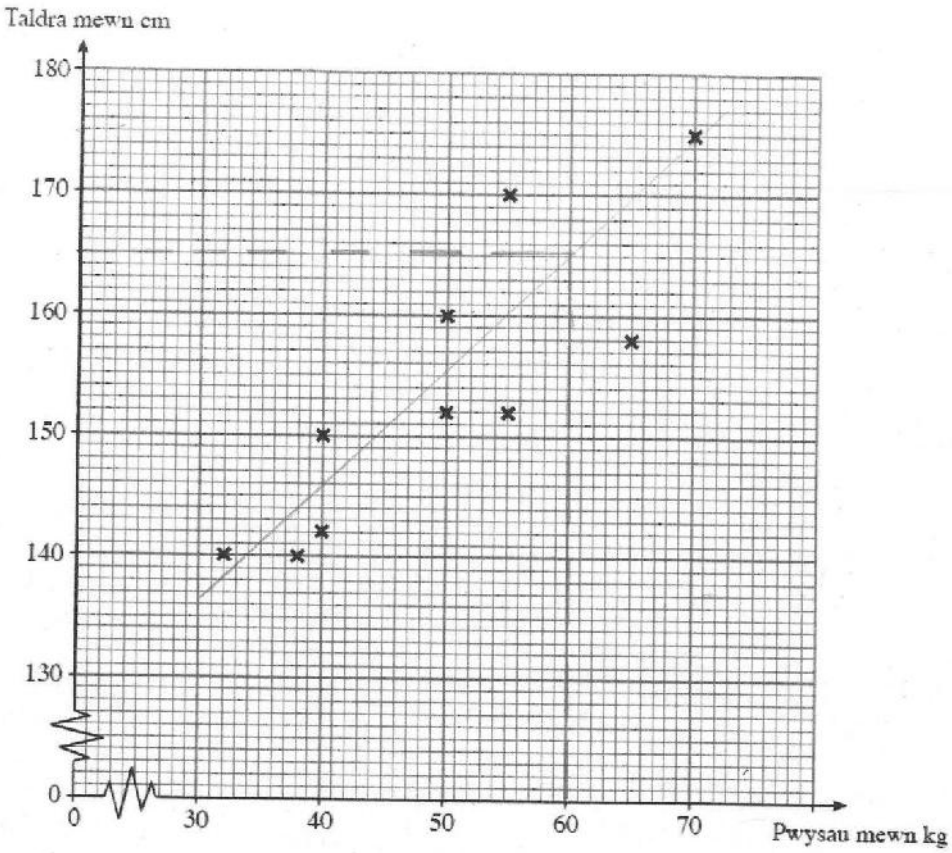



(a) Ysgrifennwch bwysau a thaldra'r **talaf** o'r 10 person.

Pwysau 70 kg

## Diagramau gwasgariad

1. Mae'r diagram gwasgariad yn dangos y taldra, mewn cm, a'r pwysau, mewn kg, ar gyfer pob un o 10 person.




*(a)* Ysgrifennwch bwysau a thaldra'r **talaf** o'r 10 person.

Pwysau ..70.. kg

Taldra ..175.. cm

[2]

*(b)* Ysgrifennwch y math o gydberthyniad *(correlation)* sy'n cael ei ddangos gan y diagram gwasgariad.

Cydberthyniad positif

[1]

*(c)* Tynnwch, â'r llygad, linell ffit orau ar y diagram gwasgariad.

[1]

*(ch)* Amcangyfrifwch bwysau person sydd â'i daldra yn 165 cm.

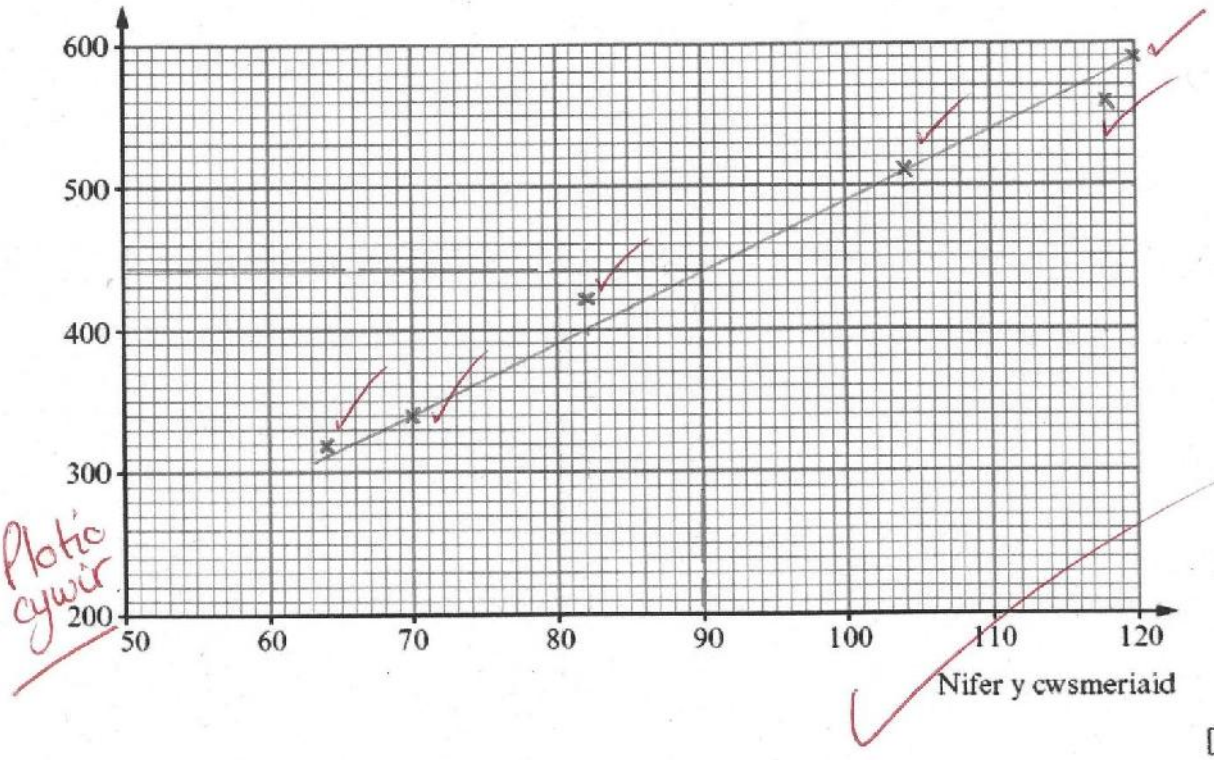
60 kg

[1]

2. Bob dydd Gwener am 6 wythnos, cafodd nifer y cwsmeriaid a aeth i mewn i siop frechdanau, a derbyniadau *(takings)* y siop, eu cofnodi.
Cafodd y derbyniadau eu cofnodi yn gywir i'r £10 agosaf.
Mae'r tabl isod yn dangos y canlyniadau.

| Nifer y cwsmeriaid | 104 | 82 | 120 | 64 | 70 | 118 |
|---|---|---|---|---|---|---|
| Derbyniadau, mewn £ | 510 | 420 | 590 | 320 | 340 | 560 |

*(a)* Ar y papur graff isod, lluniadwch *(draw)* ddiagram gwasgariad o'r canlyniadau hyn.




[2]

*(b)* Ysgrifennwch y math o gydberthyniad *(correlation)* sy'n cael ei ddangos gan y diagram gwasgariad.

Cydberthyniad Positif

[1]

*(c)* Tynnwch, â'r llygad, linell ffit orau ar eich diagram gwasgariad.

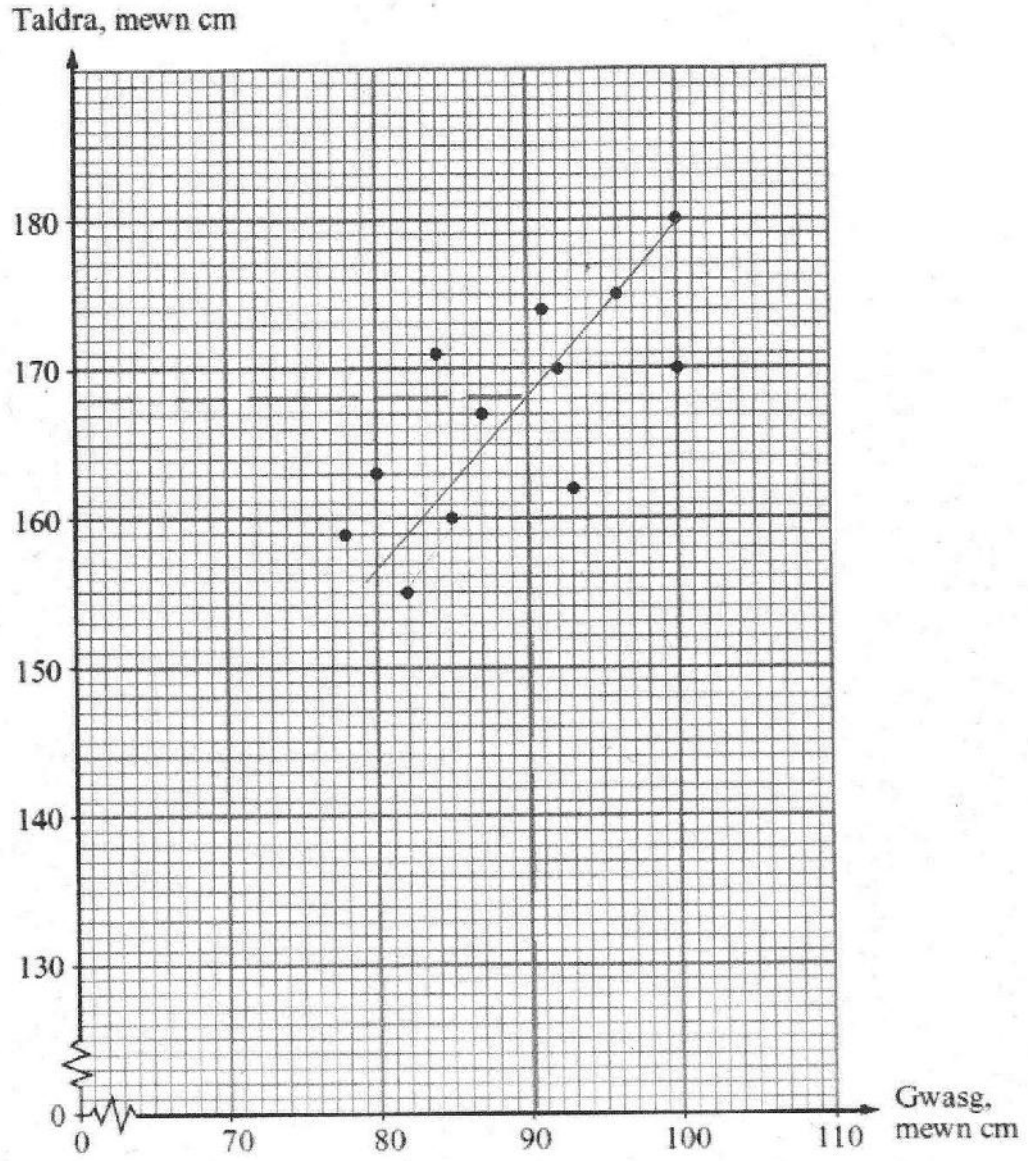
[1]

*(ch)* Amcangyfrifwch y derbyniadau ar gyfer un dydd Gwener pan fo 90 o gwsmeriaid.

£440

[1]

Mae'r diagram gwasgariad yn dangos taldra a mesuriadau gwasg *(waist)*, mewn cm, 12 person mewn clwb dartiau.




*(a)* Ysgrifennwch daldra a mesuriad gwasg y **talaf** o'r 12 person.

Taldra 180 cm

Gwasg 100 cm

[2]

*(b)* Ysgrifennwch y math o gydberthyniad *(correlation)* sy'n cael ei ddangos gan y diagram gwasgariad.

Cydberthyniad positif

[1]

*(c)* Tynnwch, gyda'r llygad, linell ffit orau ar y diagram gwasgariad. [1]

*(ch)* Amcangyfrifwch daldra aelod arall o'r clwb dartiau sydd â mesuriad gwasg o 90 cm.

168cm

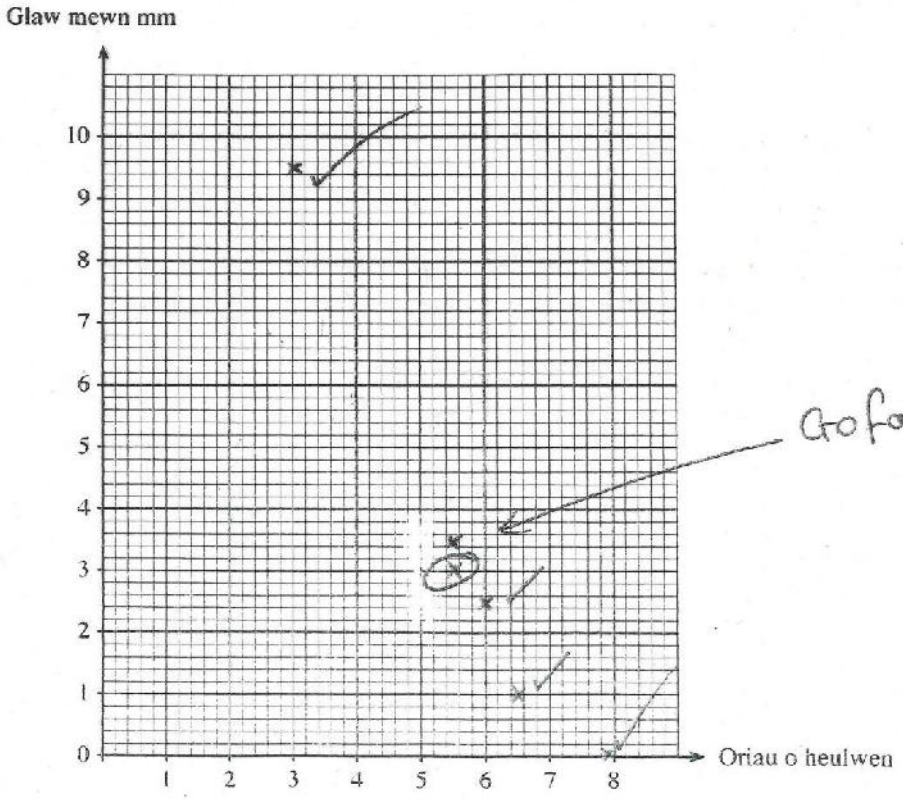
TASG 5

Examiner only / *Arholwr yn unig*

13. Cafodd nifer y milimetrau o law a nifer yr oriau o heulwen eu cofnodi gan grŵp o fyfyrwyr bob dydd Llun am 5 wythnos. Mae'r tabl isod yn dangos y canlyniadau.

| Nifer yr oriau o heulwen | 5·5 | 6·5 | 6·0 | 7·9 | 3·0 |
|---|---|---|---|---|---|
| Milimetrau o law | 3·5 | 1·0 | 2·5 | 0·0 | 9·5 |

*(a)* Ar y papur graff isod lluniwch ddiagram gwasgariad o'r canlyniadau hyn. [2]




*(b)* Disgrifiwch y cydberthyniad rhwng nifer yr oriau o heulwen a swm y glaw.

Cydberthyniad negative negatif

[1]

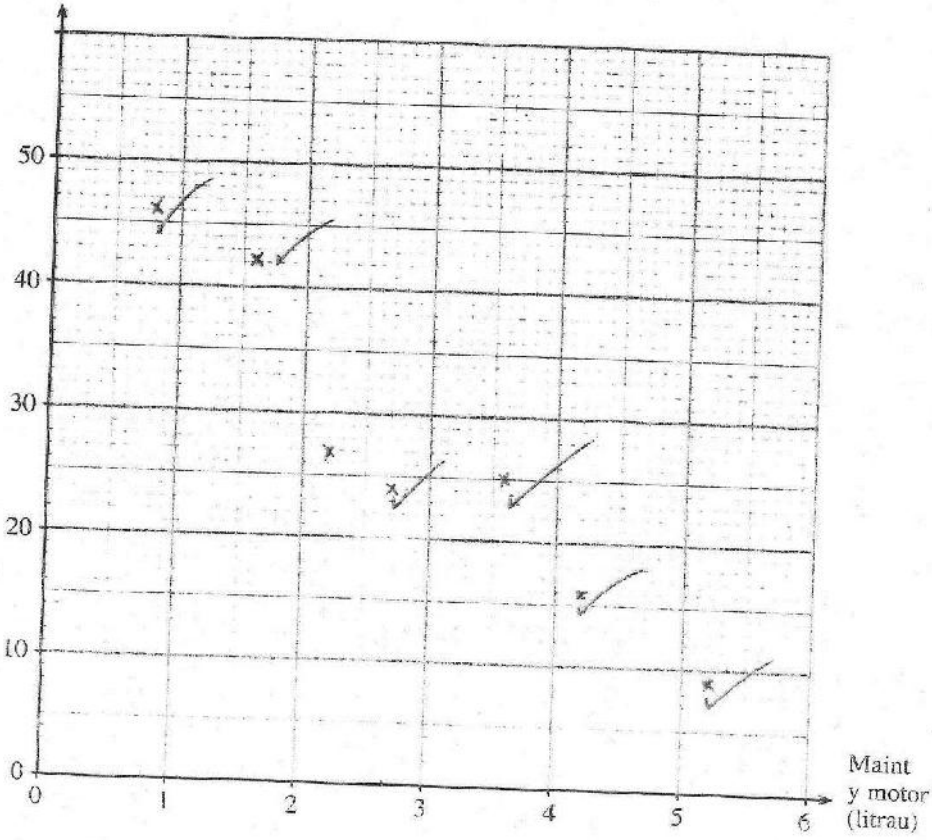
Yn saesneg → negative
Yn Gymraeg → negatif.

Trosodd.

**20.** Mae'r tabl yn dangos maint y motor (litrau) a threuliant petrol (milltiroedd y galwyn) ar gyfer pob un o 7 car.

| Maint y motor (litrau) | 1·6 | 2·7 | 4·2 | 2·2 | 5·2 | 0·8 | 3·6 |
|---|---|---|---|---|---|---|---|
| Treuliant petrol (milltiroedd y galwyn) | 42 | 24 | 16 | 27 | 9 | 46 | 25 |

*(a)* Ar y papur graff a roddwyd, lluniadwch ddiagram gwasgariad ar gyfer y wybodaeth hon. [2]




*(b)* Ysgrifennwch y math o gydberthyniad a ddangosir gan eich diagram gwasgariad.

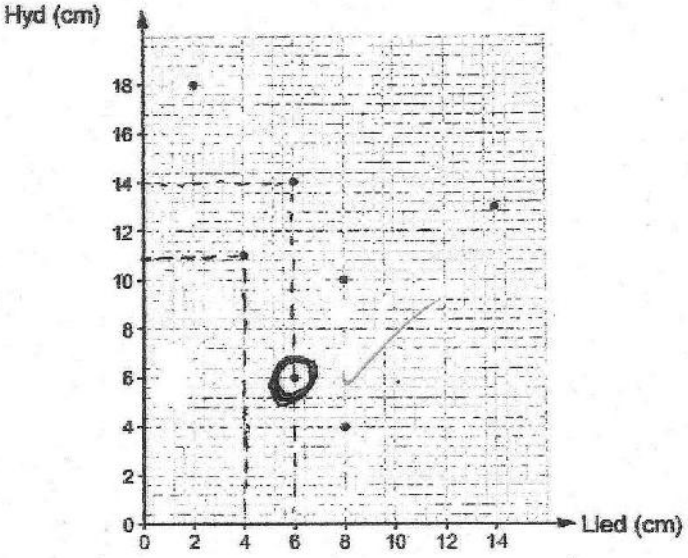
Cydberthyniad negatif ✓ Da iawn ✓ Right words! [1]

**6.** **Mae Nerys yn mynd â'i 3 chefnder, Ben, Elwyn a Denny, i acwariwm yng Ngogledd Cymru.**

*(a)* **Mae Denny yn cofnodi amcangyfrifon ar gyfer hyd a lled rhai o'r pysgod mae e'n eu gweld yn yr acwariwm.**




**Mae e'n lluniadu diagram gwasgariad fel sy'n cael ei ddangos isod.**




(i) **Lled un o'r pysgod yw 4 cm.**
**Ysgrifennwch ei hyd.** [1]

..... 11 ..... cm

(ii) Hyd pysgodyn arall yw 14 cm.
Ysgrifennwch ei led. [1]

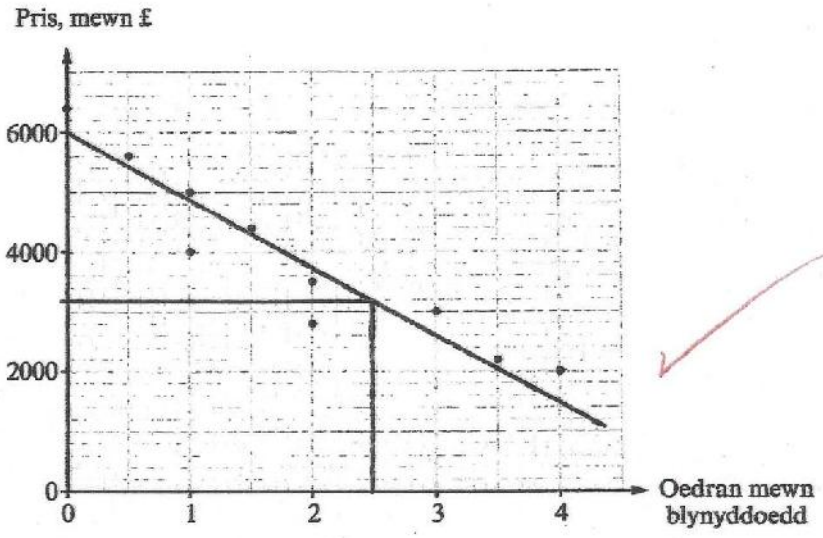
..... 6 ..... cm

(iii) Mae lled pysgodyn melyn yn union yr un peth â'i hyd.
Dangoswch ar y diagram gwasgariad pa bwynt sydd, yn eich barn chi, yn cynrychioli'r pysgodyn melyn. [1]

Yr un â lled 6cm a hyd 6cm,

Arholwr yn unig

1. Mae'r diagram gwasgariad yn dangos y pris a'r oedran ar gyfer pob un o 10 car o'r un gwneuthuriad *(make)* a model.




*(a)* Ysgrifennwch bris y car newydd.

£6,400

[1]

*(b)* Ysgrifennwch bris y car mwyaf hen.

£2,000

[1]

*(c)* Tynnwch, â'r llygad, linell ffit orau ar y diagram gwasgariad.

[1]

*(ch)* Ysgrifennwch y math o gydberthyniad *(correlation)* sy'n cael ei ddangos gan y diagram gwasgariad.

Cydberthyniad negatif

[1]

*(d)* Amcangyfrifwch bris car $2\frac{1}{2}$ blwydd oed o'r un gwneuthuriad a model.

£3,200

[1]

© WJEC CBAC Cyf. 

Tros odd.

## Adolygu

① Darganfyddwch ① Cymedr ② modd ③ amrediad ④ canolrif

3, 4, 4, ~~7~~, 8

① 5.2
② 4
③ 5
④ 4

**Rhaglen Astudio Bl.9**
**(yn awgrymu Lefel 6)**

"Canfod y cymedr o dablau amledd wedi'u grwpio"

② Cyfrifwch y cymedr

| Hyd | Amlder |
|---|---|
| $0 \leq x_5 < 10$ | x 6 = 30 |
| $10 \leq x_{15} \leq 20$ | x 3 = 45 |
| $20 \leq x_{25} < 30$ | x 2 = 50 |
| $30 \leq x_{35} < 40$ | x 4 = 140 |

Cymedr - 30 + 45 + 50 + 140 = 265

265 ÷ 15 = 17.7

*Gwaith o safon uchel o hyd eatrin.

* Ruyt wedi llwydo i lunio histogram (A/A*)

Targed: Bydd angen darllen gwybodaeth o histogram hefyd tro nesaf. - Dal ati.
+ Angen cwestiwn neu ddau o'r ffeil E-Pawell. estyneding.

Ciwaith Dosbarth 21/10/14

① Darganfyddwch a) Cymedr b) Modd c) amrediad d) Canolrif

1, 3, 3, 3, 4, 5, 7, 8, 8

a) 4.6 (42 ÷ 9)

b) 3

c) 7 (8 - 1)

d) 4

**Rhaglen Astudio Bl.9**
**(yn awgrymu Lefel 6)**

"Canfod y cymedr o dablau amledd wedi'u grwpio"

② Darganfyddwch y Cymedr

| PELLTER | AMLDER | |
|---|---|---|
| $0 \leq t < 4$ | × 5 = | 10 |
| $4 \leq t < 8$ | × 6 = | 36 |
| $8 \leq t < 12$ | × 10 = | 100 |
| $12 \leq t < 16$ | × 3 = | 42 |
| | 24 | |

10 + 36 + 100 + 42 = 188

188 ÷ 24 = 7.8

## Gwaith Cartref

Cyfrifwch y Cymedr

| £ | AMLDER |
|---|---|
| $0 < \underset{(10)}{e} \leq 20$ | × 10 = 100 |
| $20 < \underset{(30)}{e} \leq 40$ | × 15 = 450 |
| $40 < \underset{(50)}{e} \leq 60$ | × 20 = 1000 |
| $60 < \underset{(70)}{e} \leq 80$ | × 8 = 560 |
| $80 < \underset{(90)}{e} \leq 100$ | × 4 = 360 |
| | 57 |

Cymedr: 100 + 450 + 1000 +
560 + 360 = 2470
2470 ÷ 57 = 43.3 ✓

Gwaith Dosbarth 15/10/14

Cwrs Cyntaf

| | | |
|---|---|---|
| | 483,840 ✓ | |
| | 960 ✓ | 504 |
| 40 ✓ | 24 ✓ | |
| 5 | 8 | 3 |

**Lefel 8**

"Llunio tablau a diagramau amlder cronnus"

"Defnyddio amcangyfrifon o'r canolrif a'r amrediad rhyngchwartel"

Nod y wers : Darllen a llunio Diagramau amlder Cronnus

1/

| Enillion (e) (£) | AMLDER | AMLDER CRONNUS |
|---|---|---|
| $0 < e \leq 20$ | 5 | 5 (5) |
| $20 < e \leq 40$ | 15 add | 20 (5+15) |
| $40 < e \leq 60$ | 26 | 46 (20+26) |
| $60 < e \leq 80$ | 30 | 76 (46+30) |
| $80 < e \leq 100$ | 6 | 82 (76+6) |

a) Cwblhewch y tabl

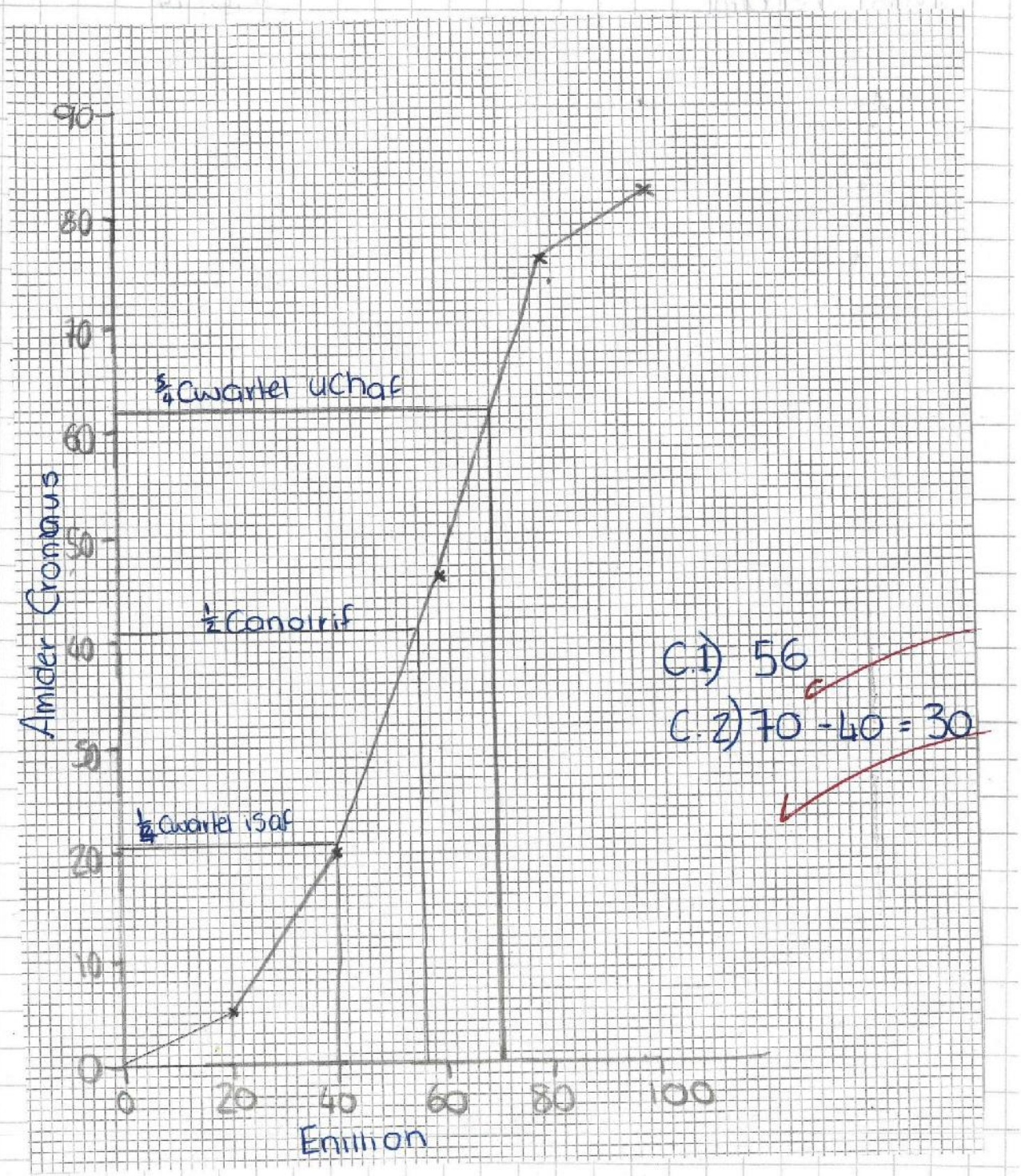
b) Lluniwch ddiagram amlder cronnus

c) Defnyddio eich graff i gyfrifo 1) canolrif 2) amrediad rhyngchwartel

canolrif hanner 82 = 41

Cwartel isaf - Hanner 41 = 20.5

Cwartel uchaf - 41 + 20.5 =




C.1) 56

C.2) 70 - 40 = 30

Gwaith Dosbarth 11/11/14

Cwrs Cyntaf:

① 345 × 26 = 8970

| | 3 | 4 | 5 |
|---|---|---|---|
| 2 | 0 6 | 0 8 | 1 0 |
| 6 | 1 8 | 2 4 | 3 0 |

8970

② 64850 ÷ 5 = 12970

12970
5)64850

**Rhaglen Astudio Bl.7**
**(yn awgrymu Lefel 5)**

"Cyflwyno atebion hyd at nifer penodedig o leoedd degol"

Nod y wers: Talgrynnu

Talgrynnwch y canlynol:

① 682 i'r deg agosaf
② 455 i'r deg agosaf → = 460
③ 12473 i'r deg agosaf → = 12470
④ 682 i'r cant agosaf → = 700
⑤ 455 i'r cant agosaf → = 500
⑥ 12473 i'r cant agosaf → = 12500
⑦ 6.13 i'r 1 lle degol → = 6.1
⑧ 81.34 i'r 1 lle degol → = 81.3
⑨ 6.2843 i'r 2 lle degol → = 6.28

10. 143.7856 i'r 2 lle degol → = 143.79

① Talgrynnwch i'r 10 agosaf

a) 82 → 80 ✓ d) 55 → 60 ✓ g) 12,645 → 12,650 ✓

b) 645 → 650 ✓ e) 614 → 610 ✓ h) 1,486 → 1,490 ✓

c) 1,916 → 1,920 ✓ f) 987 → 990 ✓ i) 254 → 250 ✓

② Talgrynnwch i'r 100 agosaf

a) 82 → 100 ✓ d) 954 → 1,000 ✓ g) 687 → 700 ✓

b) 645 → 600 ✓ e) 850 → 900 ✓ h) 4,876 → 4,900 ✓

c) 1,916 → 1,900 ✓ f) 6,416 → 6,400 ✓ i) 950 → 1,000 ✓

③ Talgrynnwch i 1 lle degol

a) 8.65 → 8.7 ✓ d) 24.35 → 24.4 ✓ g) 46.29 → 46.3 ✓

b) 19.14 → 19.1 ✓ e) 614.25 → 614.3 ✓ h) 78.3659 → 78.4 ✓

c) 8.25 → 8.3 ✓ f) 243.14 → 243.1 ✓ i) 614.95 → 615.0 ✓

④ Talgrynnwch i 2 lle degol

a) 9.456 → 9.46 ✓ c) 124.345 → 124.35 ✓ e) 1.9175 → 1.92 ✓

b) 16.281 → 16.28 ✓ d) 7.1864 → 7.19 ✓ f) 2.995 → 3.00

Gwaith Dosbarth 18/11/14

Cwrs Cyntaf: Cyfrifwch heb gyfrifiannell

① 6843 + 965 = 7808 ✓

```
  6843
+  965
------
  7808
  1 1
```

② 5000 - 645 = 4355 ✓

```
 4 9 9 10
 5 0 0 0
-  6 4 5
---------
 4 3 5 5
```

③ 216 × 34 = 7344 ✓

| | 2 | 1 | 6 |
|---|---|---|---|
| 3 | 0 / 6 | 0 / 3 | 1 / 8 |
| 4 | 0 / 8 | 0 / 4 | 2 / 4 |

```
  7344
  1 1
```

④ 7227 = 7227 ✓

```
    7227
3 ) 21684 1
```

Nod y wers: Talgrynnu

① Talgrynnwch i 1 lle degol

1) 6.81 - 6.8 ✓
2) 9.54 - 9.5 ✓
3) 18.15 - 18.8 ✓
4) 9.6234 - 9.6 ✓
5) 142.85 - 142.9 ✓
6) 14.95 - 15.0 ✓
7) 164.29 - 164.3 ✓
8) 7.85 - 7.9 ✓
9) 114.94 - 114.9 ✓
10) 99.99 - 100.0 ✓

Gwaith Dosbarth 19/11/14

Cwrs cyntaf:

① Talgrynnwch i'r 10 agosaf:

a) 67 → 70 ✓ b) 145 → 150 ✓ c) 999 → 1000 ✓

② Talgrynnwch i'r 100 agosaf:

a) 839 → 800 ✓ b) 150 → 200 ✓ c) 43 → 0 ✓

③ Talgrynnwch i 1 lle degol:

a) 6.84 → 6.8 ✓ b) 126.3587 → 126.4 ✓ c) 9.99 → 10.0 ✓

Nod y wers: Talgrynnu i 1 ffigwr ystyrlon

Talgrynnwch i 1 ffig. yst.

a) 864 → 900

b) 84.61 → 80

c) 8861 → 9000

d) 916543 → 900,000

e) 0.0659 → 0.07

f) 0.00004918 → 0.00005

g) 1.0382 → 1

h) 0.0300965 → 0.03

**Rhaglen Astudio Bl.8**
**(yn awgrymu Lefel 5+)**

"Cyflwyno atebion hyd at nifer penodedig o ffigurau arwyddocaol (ystyrlon)"

Hunan Asesiad

1) Talgrynnwch y rhifau hyn i'r rhif cyfan agosaf

a) 24.3 → 24 ✓ b) 561.5 → 562 ✓ c) 81.2 → 81 ✓

ch) 417.6 → 418 ✓ d) 81.91 → 82 ✓ dd) 128.43 → 128 ✓

e) 39.8 → 40 ✓ f) 627.203 → 627 ✓ ff) 5.32 → 5 ✓

g) 4.57 → 5 ✓

2) Talgrynnwch y rhifau hyn i 1 lle degol

a) 2.37 → 2.4 ✓ b) 8.24 → 8.2 ✓ c) 9.45 → 9.5 ✓

ch) 12.6666 → 12.7 ✓ d) 8.912 → 8.9 ✓ dd) 12.87 → 12.9 ✓

e) 9.624 → 9.6 ✓ f) 7.465 → 7.5 ✓ ff) 6.1919 → 6.2 ✓

g) 1.95 → 2.0 ✓

3) Talgrynnwch y Rhifau hyn i 2 lle degol

a) 2.837 → 2.84 ✓ b) 1.624 → 1.62 ✓ c) 5.465 → 5.47 ✓

ch) 5.1919 → 5.19 ✓ d) 1.2345 → 1.23 ✓ dd) 7.381 → 7.38 ✓

e) 6.247 → 6.25 ✓ f) 7.318 → 37.32 ✓ ff) 7.904 → 7.90 ✓

g) 9.595 → 9.60 ✓

4) Talgrynnwch y Rhifau hyn i 1 ffigwr ystyrlon:

a) 64 → 60 ✓ b) 372 → 400 ✓ c) 9414 → 9000 ✓

ch) 98 → 100 ✓ d) 9012 → 9000 ✓ dd) 54217 → 50000 ✓

e) 2594 → 3000 ✓ f) 45092 → 50000 ✓ ff) 1631 → 2000 ✓

g) 1871.32 → 2000 ✓

⑤ Enillodd clyn £3 871 242 mewn loteri. Faint yw hwn yn gywir i 1 ffigwr ystyrlon?

3 871 242 → 4000000 ✓

---

Gwaith Dosbarth 21/11/14

Cwrs Cyntaf: Talgrynnwch i 1 ffig. yst.

a) 473 → 500 ✓ b) 12389 → 10000 ✓

c) 61.43 → 60 ✓ d) 0.0068 → 0.007 ✓

e) 3564 → 4000 ✓ f) 9850 → 10000 ✓

g) 0.0000854 → 0.00009 ✓ h) 0.0991 → 0.10 ✓

Nod y wers: Amcangyfrif

Amcangyfrwch yr ateb i'r Can

① 192 × 11 ② 405 ÷

≈ 200 × 10 ≈ 400

≈ 2000 ≈ 20

③ $\frac{489 \times 96}{39} \div 39$

$\approx \frac{500 \times 100}{40} \div 40$

$\approx \frac{50,000}{40}$ $\approx \frac{5000}{4}$ (÷2 and ÷2 eto)

**Rhaglen Astudio Bl.7**
**(yn awgrymu Lefel 5)**

"Talgrynnu er mwyn amcangyfrif atebion"

④ $\frac{52 \times 788}{41} \div 41$

$\approx \frac{50 \times 800}{40} \div 40$

$\approx \frac{40,000}{40}$

$\approx \frac{4000}{4}$

$\approx 1000$

⑤ $\frac{621 \times 59}{21} \div 21$

$\approx \frac{600 \times 60}{20} \div 20$

$\approx \frac{36000}{20}$

$\approx \frac{3600}{2}$

$\approx 1800$

Ymarfer - Amcangyfrifoch

① $416 \times 25$

$\approx 400 \times 30$

$\approx 12,000$ ✓

② $614 \times 38$

$\approx 600 \times 40$

$\approx 24000$ ✓

③ $78 \div 38$

$\approx 80 \div 40$

$\approx 2$ ✓

5 ⑤ $\frac{281 \times 31}{11}$

$\approx \frac{300 \times 30}{10}$

$\approx \frac{9000}{10}$

$\approx 900$ ✓

4 ④ $99 \div 51$

$\approx 100 \div 50$

$\approx 2$ ✓

⑥ $\frac{287 \times 57}{21}$

$\approx \frac{300 \times 60}{20}$

$\approx \frac{18000}{20}$

$\approx 900$ ✓

Gwaith Dosbarth 25/11/14

Cwrs Cyntaf: Amcangyfrwch

① $614 \times 91$

$\approx 600 \times 90$

$\approx 54,000$ ✓

② $403 \div 21$

$\approx 400 \div 20$

$\approx 20$ ✓

③ $\frac{68 \times 71}{11}$

$\approx \frac{70 \times 70}{10}$

$\approx \frac{4900}{10}$

$\approx \frac{490}{1}$

$\approx 490$ ✓

④ $\frac{142 \times 28}{31}$

$\approx \frac{100 \times 30}{30}$

$\approx \frac{3000}{30}$

$\approx \frac{300}{3}$

$\approx 100$ ✓

⑤ $\frac{291 \times 42}{61}$

$\approx \frac{300 \times 40}{60}$

$\approx \frac{12,000}{60}$

$\approx \frac{1200}{6}$

$\approx 200$ ✓

⑥ $\frac{806 \times 42}{22}$

$\approx \frac{800 \times 40}{20}$

$\approx \frac{32000}{20}$

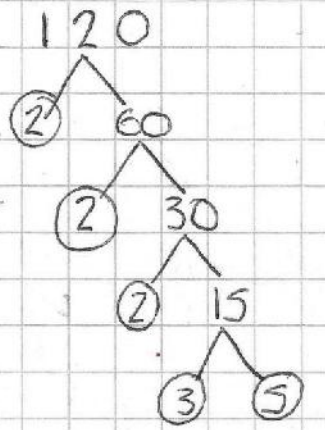
$\approx \frac{3200}{2}$

$\approx 1,600$ ✓

Nod y wers: Ysgrifennu rhif fel lluoswm ei ffactorau cysefin.

Rhifau cysefin: 2, 3, 5, 7, 11, 13, 17, 19, 23

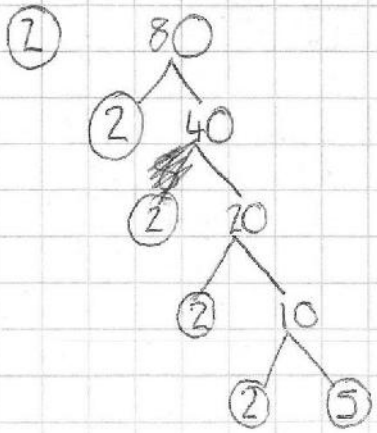
① Ysgrifennwch 120 fel lluoswm ei ffactorau cysefin ar ffurf indecs.




$120 = 2 \times 2 \times 2 \times 3 \times 5 = 120$
$= 2^3 \times 3^1 \times 5^1$

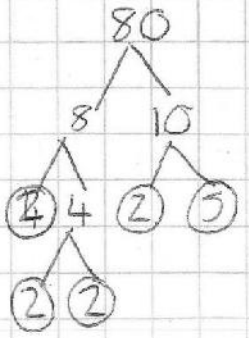
**Rhaglen Astudio Bl.9**
**(yn awgrymu Lefel 6)**

"Ysgrifennu rhif fel cynnyrch ei ffactorau cysefin ar ffurf indecs"




$80 = 2 \times 2 \times 2 \times 2 \times 5$
$= 2^4 \times 5^1$

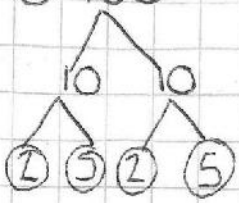
neu




$80 = 2 \times 2 \times 2 \times 2 \times 5$
$= 2^4 \times 5^1$

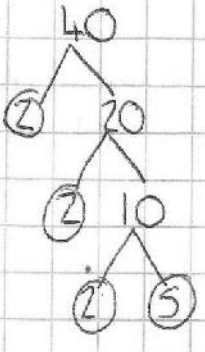
Ymarfer

① 100



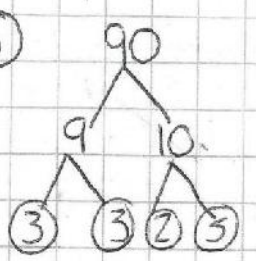

$100 = 2 \times 5 \times 2 \times 5$
$= 2^2 \times 5^2$ ✓

② 40



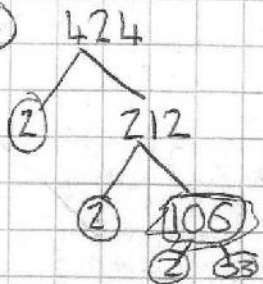

$40 = 2 \times 2 \times 2 \times 5$
$2^3 \times 5^1$ ✓

③ 90



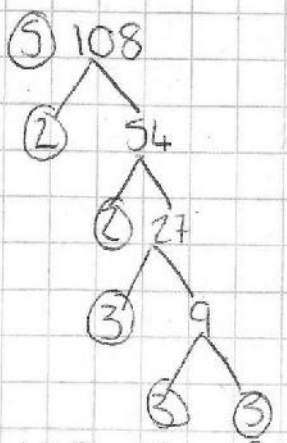

$90 = 3 \times 3 \times 2 \times 5$
$= 3^2 \times 2^1 \times 5^1$ ✓

④ 424




$424 = 2 \times 2 \times 106$
$= 2^3 \times 106^1$ ✓

⑤ 108




$108 = 2 \times 2 \times 3 \times 3 \times 3$ ✓

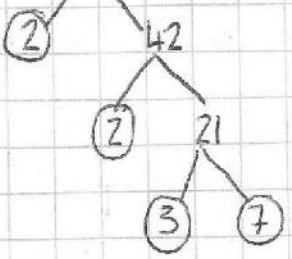
$= 2^2 \times 3^3$

Gwaith Dosbarth

26/11/14

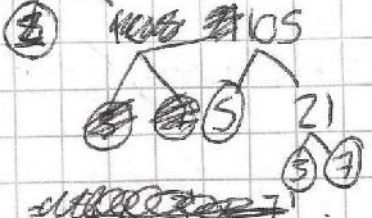
Cwrs Cyntaf: Ysgrifennwch y ~~[illegible]~~ canlynol fel lluoswm ei ffactorau cysefin ar ffurf indices.

(1) 84



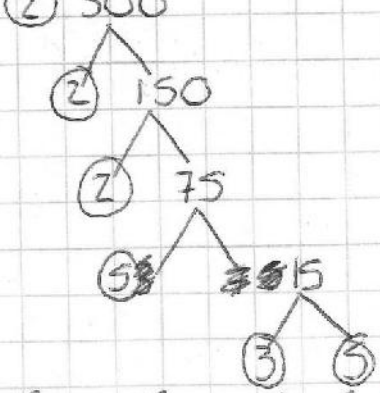

$84 = 2^2 \times 3^1 \times 7^1$ ✓

(2) 210



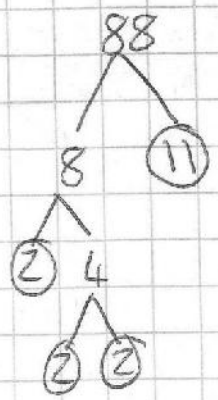

$210 = 2^1 \times 5^1 \times 3^1 \times 7^1$ ✓

(3) 600



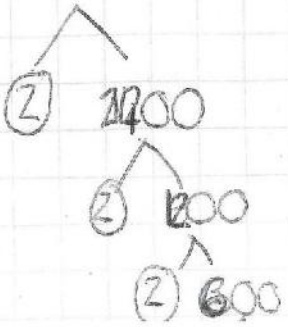

$600 = 2^3 \times 5^2 \times 3^1$ ✓

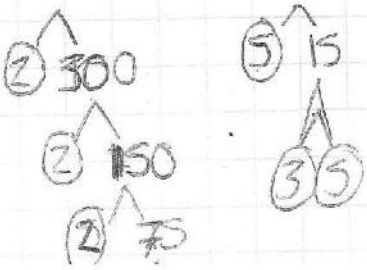
(4) 88




$88 = 11^1 \times 2^3$ ✓

(5) 4800




$4800 = 2^6 \times 5^2 \times 3^1$ ✓

NOD Y WERS: Defnyddio ffurf safonol.

6,000,000,000 ⇝ $6 \times 10^9$

8,000,000 ⇝ $8 \times 10^6$

0.00000001 ⇝ $1 \times 10^{-8}$

0.004 ⇝ $4 \times 10^{-3}$

€74000 ⇝ $7.4 \times 10^4$

820 ⇝ $8.2 \times 10^2$

164000 ⇝ $1.64 \times 10^5$

**Rhaglen Astudio Bl.9**
**(yn awgrymu Lefel 6)**

"Defnyddio pwerau a deall pwysigrwydd pwerau 10, a'i gynhwysiad mewn ffurf safonol e.e. $2^6 \times 2^8 = 2^{14}$ "

YMARFER

① 6,000,000,000,000 ⇝ 6

② 8400 ⇝ $8.4 \times 10^3$ ✓

③ 9160 ⇝ $9.16 \times 10^3$ ✓

④ 0.0005 ⇝ $5 \times 10^{-4}$ ✓

⑤ 87000 ⇝ $8.7 \times 10^4$ ✓

⑥ 9,000,000 ⇝ $9 \times 10^6$ ✓

⑦ 840000 ⇝ $8.4 \times 10^5$ ✓

⑧ 0.0008 ⇝ $8 \times 10^{-4}$ ✓

⑨ 0.06 ⇝ $6 \times 10^{-2}$ ✓

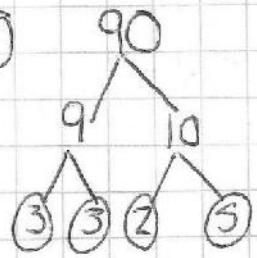
⑩ 961400 ⇝ $9.614 \times 10^5$ ✓

Gwaith Dosbarth

28/11/14

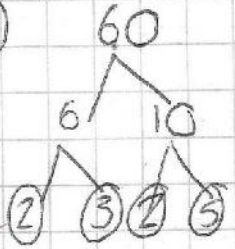
Cwrs Cyntaf: Ysgrifennwch fel lluoswm ei ffactorau cysefin ar ffurf indecs.

(1) 90



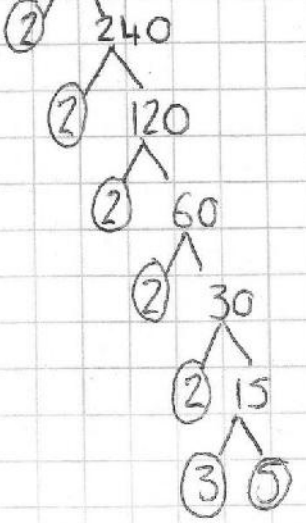

$90 = 3^2 \times 2^1 \times 5^1$ ✓

(2) 60



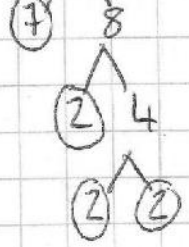

$60 = 2^2 \times 5^1 \times 3^1$ ✓

(3) 480



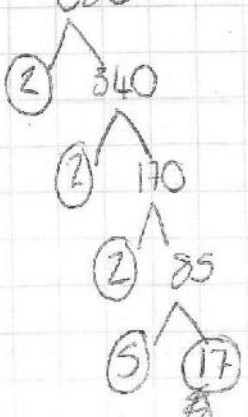

$480 = 2^5 \times 3^1 \times 5^1$ ✓

(4) 56




$56 = 2^3 \times 7^1$ ✓

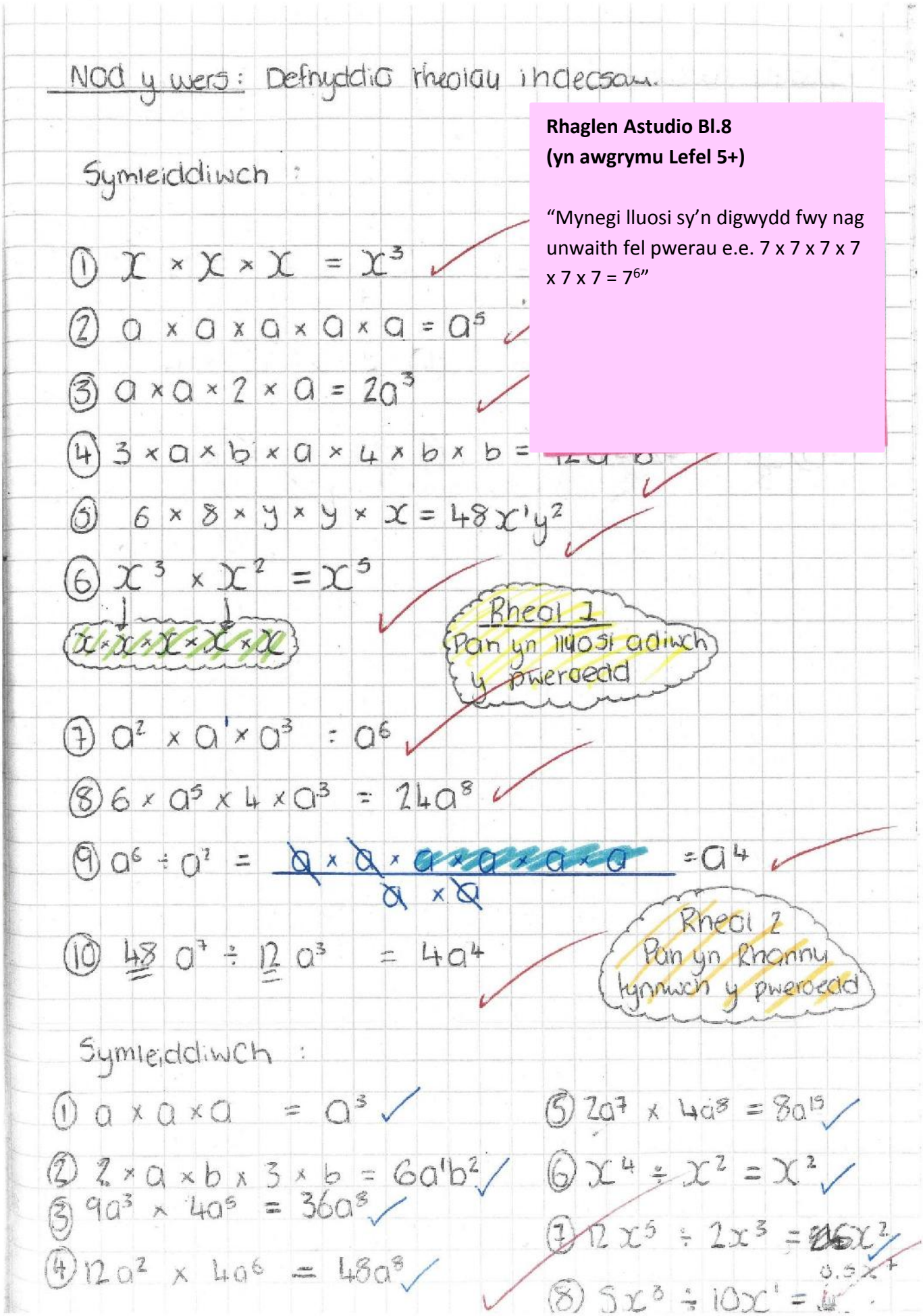
(5) 680




$680 = 2^3 \times 5^1 \times 17^1$ ✓

**Rhaglen Astudio Bl.8**
**(yn awgrymu Lefel 5+)**

"Mynegi lluosi sy'n digwydd fwy nag unwaith fel pwerau e.e. 7 x 7 x 7 x 7 x 7 x 7 = $7^6$"



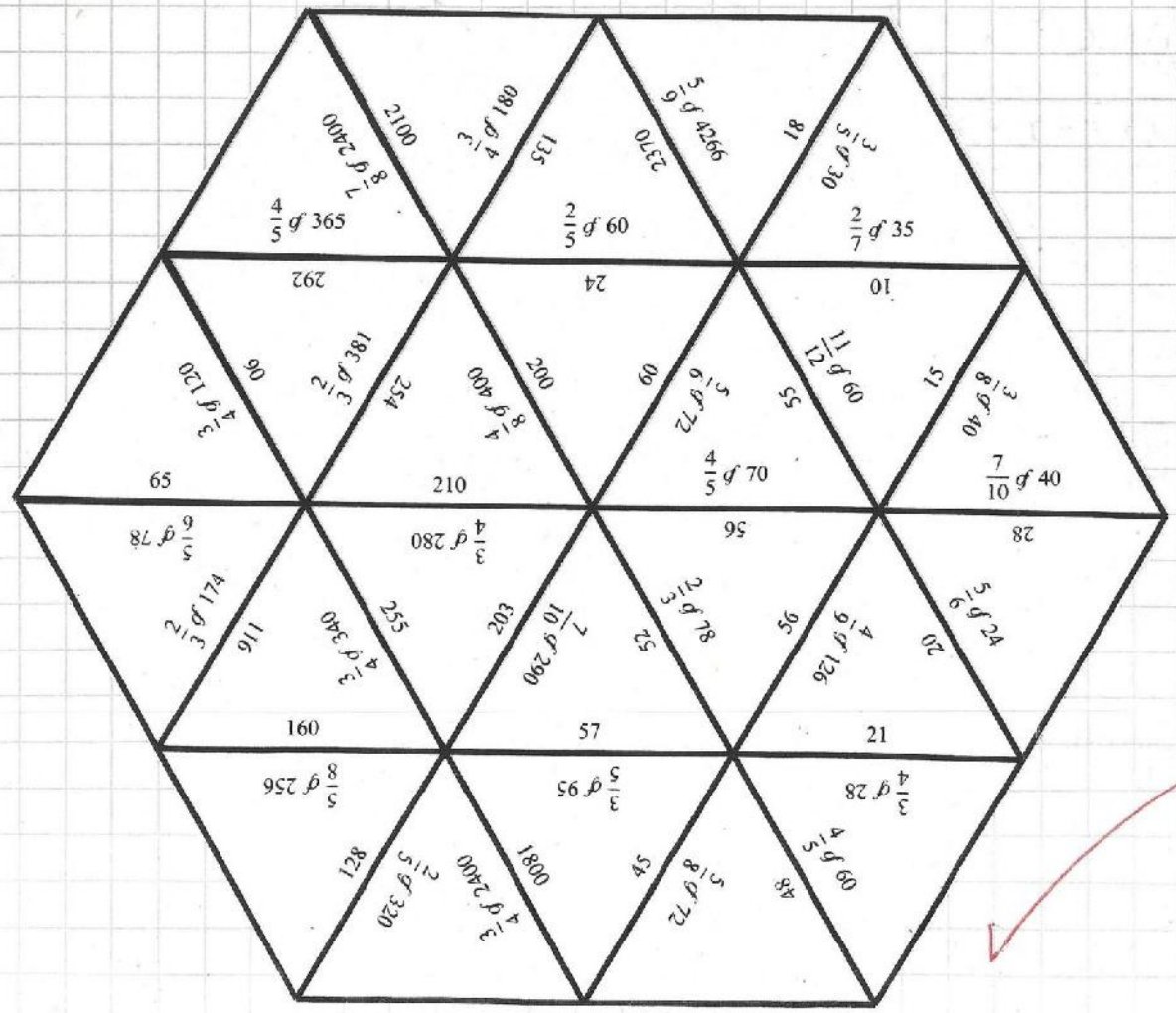
Gwaith Doobarth

2/12/14

Cwrs Cyntaf:

**Lefel 5**

"Cyfrifo rhannau ffracsiynol neu ganrannol o feintiau a mesuriadau"



Gwaith Dosbarth 5/12/14

Cwrs Cyntaf:

① $\frac{2}{5} \times 50 = 20$ ✓

② $\frac{3}{5} \times 90 = 54$ ✓

③ $\frac{5}{6} \times 90 = 75$ ✓

④ $\frac{5}{8} \times 16 = 10$ ✓

⑤ $\frac{4}{9} \times 27 = 12$ ✓

⑥ $\frac{7}{8} \times 144 = 126$ ✓

Nod y wers: Cyfrifo canrannau heb a gyda chyfrifannell.

Cyfrifwch y canlynol heb gyfrifiannell

① 65% o £40

10% o 40 = £4

60% = 4 × 6 = £24 (×6)

5% = £2 (÷2)

65% = £26

② 43% o £900

×4 ( 10% o 900 = £90 ) ×4
40% = £360

1% = £9 × 3 = £27

43% = £387

③ 22% o £9

×2 ( 10% o 9 = £0.90 ) ×2
20% = £1.80

×2 ( 1% o 9 = £0.09 ) ×2
2% o 9 = £0.18

22% = £1.98

YMARFER

① 45% o £50

×4 ( 10% o 50 = £5 ) ×4
40% = £20

5% o 5 = £2.50

45% = £22.50

② 63% o £500

×6 ( 10% o 500 = £50 ) ×6
60% = £300

×3 ( 1% = £5 ) ×3
3% = £15

63% = £315

③ 24% o £8

×2 ( 10% o 8 = £0.80
20% = £1.60

×4 ( 1% o 8 = £0.08 ) ×4
4% = £0.32

24% = £1.92 ✓

④ 51% o £7000

×5 ( 10% o 7000 = £700
50% = £3500

1% = 70

51% = 3570 ✓

⑤ 82% o £430

10% o 430 = £43
80% = £344

1% = £4.30
2% = £8.60

82% = £352.60 ✓

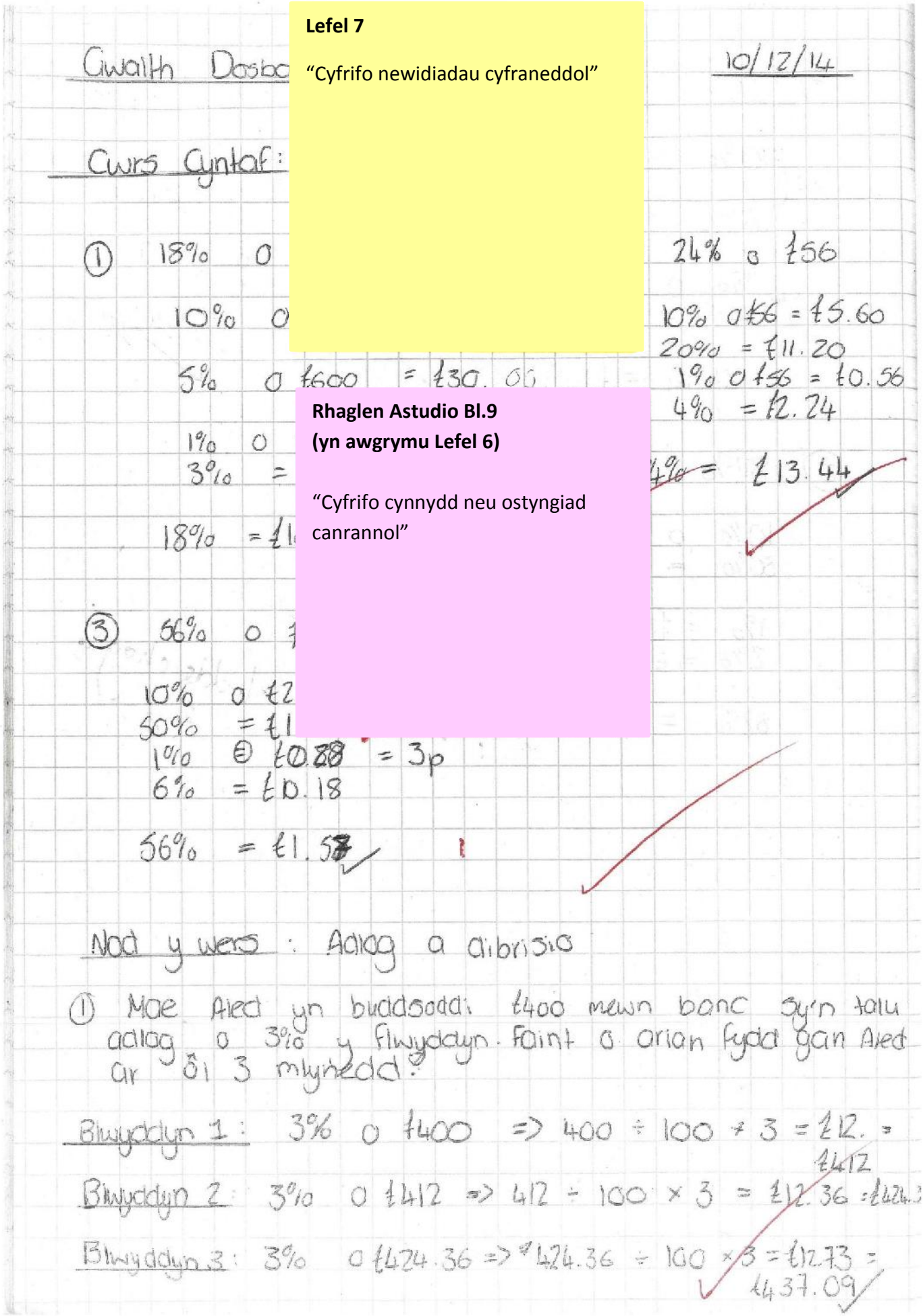
Ardderchog!

**Lefel 7**

"Cyfrifo newidiadau cyfraneddol"

**Rhaglen Astudio Bl.9**
**(yn awgrymu Lefel 6)**

"Cyfrifo cynnydd neu ostyngiad canrannol"



② Mae Aled yn buddsoddi £9000 mewn banc sy'n talu adlog o 5% y flwyddyn faint o arian fydd gan Aled ar ôl 3 Mlynedd?

Blwyddyn 1: 5% o £9000 => 9000 ÷ 100 × 5 = £450
£9450
Blwyddyn 2: 5% o £9450 => 9450 ÷ 100 × 5 = £472.50
£9922.50
Blwyddyn 3: 5% o £9922.50 => 9922.50 ÷ 100 × 5 = 496.13
= £10418.63

③ Mae car gwerth £24,000 pan yn newydd. Maen dibrisio 5% bob blwyddyn. Beth yw gwerth y car mewn 3 mlynedd?

Blwyddyn 1: 5% o £24,000 => 24,000 ÷ 100 × 5 = £1200
£22,800
Blwyddyn 2: 5% o £22,800 => 22800 ÷ 100 × 5 = £1140
£21,660
Blwyddyn 3: 5% o £21,660 => 21,600 ÷ 100 × 5 = £1083
=> £20,577

Ardderchog!

**Lefel 6**

"Cyfrifo un rhif fel ffracsiwn neu ganran o un arall"

""Defnyddio cywerthoedd rhwng ffracsiynau"



**Cyfrifo un rhif fel ffracsiwn neu ganra**

Mae angen (a) ysgrifennu'r ffracsiwn ( $\frac{top}{gwaelod}$ )

(b) newid y ffracsiwn i ganran (allan o 100)

**Enghreifftiau syml**

(i) mynegwch 15 fel canran o 60

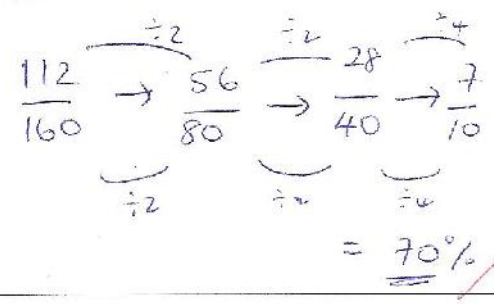
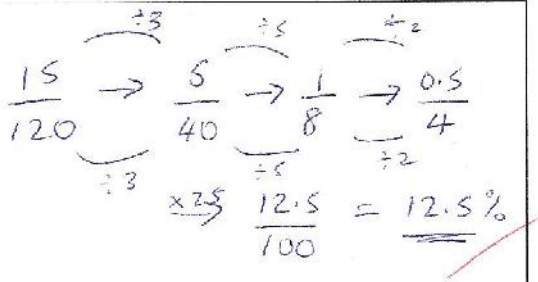
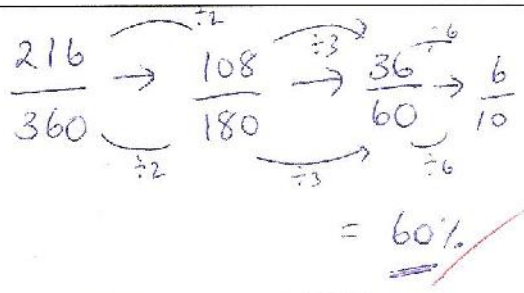
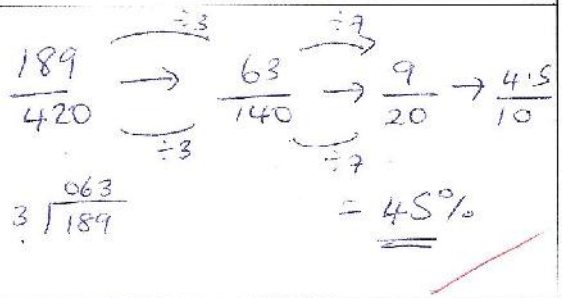
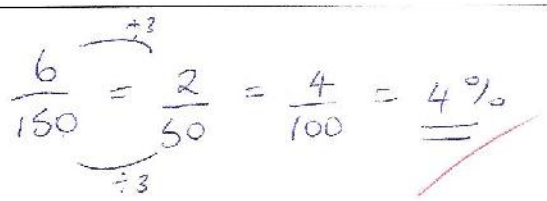
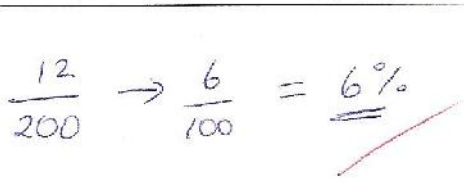
$$\frac{15}{60} \rightarrow \frac{1}{4} \rightarrow \frac{25}{100} \rightarrow \underline{25\%}$$

(ii) mynegwch 88 fel canran o 132

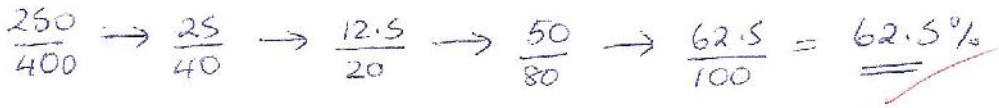
$$\frac{88}{132} \rightarrow \frac{8}{12} \rightarrow \frac{2}{3} \rightarrow 0.6666666\dot{} \rightarrow \underline{66.7\%} \text{ (i 1 lle degol)}$$

**Cyfrifwch y canlynol:**
(Pan fo angen, talgrynnwch eich atebion i 1 lle degol)

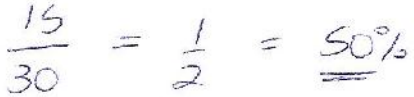
| **74 fel canran o 200** | **200 fel canran o 2000** |
|---|---|
| $\frac{74}{200} \xrightarrow{\div 2} \frac{37}{100} = 37\%$ | $\frac{200}{2000} \rightarrow \frac{20}{200} \rightarrow \frac{10}{100} = 10\%$ |
| **84 as a percentage of 400** | **36 fel canran o 60** |
| $\frac{84}{400} \xrightarrow{\div 4} \frac{21}{100} = 21\%$ | $\frac{36}{60} \xrightarrow{\div 6} \frac{6}{10} = 60\%$ |

| 112 fel canran o 160 | 15 fel canran o 120 |
|---|---|
|  |  |
| **216 fel canran o 360** | **189 fel canan o 420** |
|  |  |
| **6p fel canran o £1.50** | **12cm fel canran o 2m** |
|  |  |

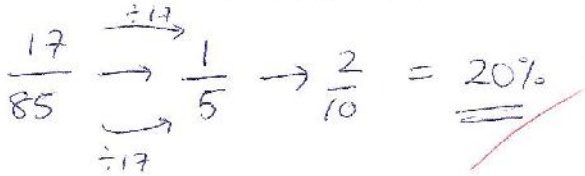
Mewn ysgol o 400 disgybl, mae 250 ohonynt yn ferched. Pa ganran sy'n ferched?



Roedd hi wedi bwrw glaw am 15 diwrnod yn ystod mis Medi. Pa ganran o'r diwrnodau oedd wedi bwrw glaw?



Sgoriodd capten tîm pêl-droed 17 gôl allan o'r 85 a sgoriwyd trwy gydol y tymor. Pa ganran o'r goliau oedd y capten wedi sgorio?



**Lefel 6**

"Cyfrifo gan ddefnyddio cymarebau mewn sefyllfaoedd priodol"

Gwaith Desbarth 10.12.14

Cwis Cyntaf

1) 28% o £52 = 10% = £5.20 ×8 1% = £0.52
×2 20% = £10.44 8% = £4.16 £14.60

2) 16 ÷ o £400 = 10% = £40 + 1% = £4
×1 10% = £40 ×6 6% = £24
£24 = £64

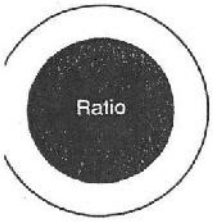
3) 7/8 o 56 = 49 ✓ 4) 0.3 o 40 = 12 ✓ 5) 0.2 o 50 = 10 ✓

Nod y Wers: Cymarebau

Symleiddiwch:

1) 6:4 ÷2 → 3:2 ✓ 2) 45:18 ÷9 → 5:2 ✓ 3) 24:44 ÷4 → 6:11 ✓ 4) 2:4:10 ÷2 →
1:2:5 ✓

5) 24:60:84 ÷12 → 2:5:7 ✓




## Puzzle Picture 14

Choose one or both of the sets of sums and work out all the answers.

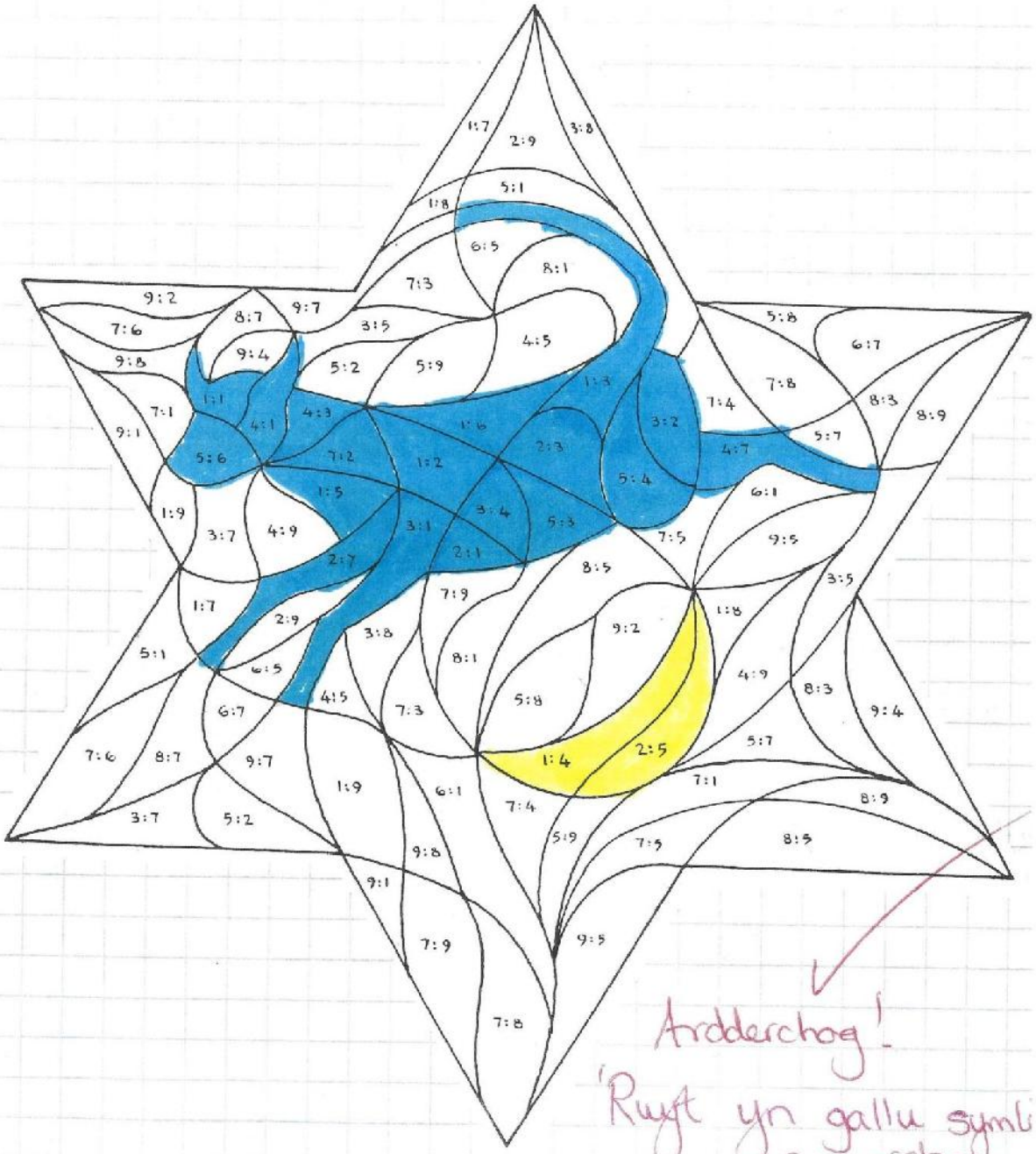
On the diagram opposite colour each area which contains one of the answers.

What do you see?



### First Set

| | | | | | |
|---|---|---|---|---|---|
| 1. | 10 : 5 = | 2 : 1 | 14. | 9 : 12 = | 3 : 4 |
| 2. | 6 : 2 = | 3 : 1 | 15. | 10 : 35 = | 2 : 7 |
| 3. | 6 : 4 = | 3 : 2 | 16. | 20 : 35 = | 4 : 7 |
| 4. | 4 : 8 = | 1 : 2 | 17. | 25 : 30 = | 5 : 6 |
| 5. | 5 : 5 = | 1 : 1 | 18. | 14 : 4 = | 7 : 2 |
| 6. | 40 : 10 = | 4 : 1 | 19. | 12 : 9 = | 4 : 3 |
| 7. | 4 : 6 = | 2 : 3 | 20. | 35 : 28 = | 5 : 4 |
| 8. | 3 : 9 = | 1 : 3 | | | |
| 9. | 5 : 25 = | 1 : 5 | | | |
| 10. | 10 : 25 = | 2 : 5 | | | |
| 11. | 3 : 12 = | 1 : 4 | | | |
| 12. | 3 : 18 = | 1 : 6 | | | |
| 13. | 10 : 6 = | 5 : 3 | | | |




Gwaith Dosbarth 11·12·14

Cwrs Cyntaf: Symleiddiwch

① 10:4 → (÷2) 5:2 ② 42:49 → (÷7) 6:7 ③ 15:50 → (÷5) 3:10 ④ 9:30 → (÷3) 3:10

⑤ 16:24 → (÷8) 2:3 ⑥ 17:34:51 → (÷17) 1:2:3

Nod yr Wers: Defnyddio aymareboau

## Cymarebau / Ratio

1. Rhannwch / Divide:
   a) £40 yn y gymhareb 3:2 / £40 in the ratio 3:2.
   b) £72 yn y gymhareb 5:4 / £72 in the ratio 5:4
   c) £28 yn y gymhareb 3:4 / £28 in the ratio 3:4
   d) £77 yn y gymhareb 6:5 / £77 in the ratio 6:5
   e) £65 yn y gymhareb 2:3 / £65 in the ratio 2:3
   f) £54 yn y gymhareb 5:1 / £54 in the ratio 5:1
   g) £1040 yn y gymhareb 5:8 / £1040 in the ratio 5:8
   h) £1540 yn y gymhareb 9:5 / £1540 in the ratio 9:5
   i) £27 yn y gymhareb 5:3:1 / £27 in the ratio 5:3:1
   j) £140 yn y gymhareb 6:3 :1 / £140 in the ratio 6:3:1

2. a) Mae ysgol yn codi £272 ar gyfer elusen. Maen't yn penderfynu rhannu'r arian rhwng yr elusennau Dr. Barnados a Ymchwil cancr yn y gymhareb 3:5. Faint o arian mae pob elusen yn ei dderbyn?
   A school has collected £272 for charity. It was decided to divide the money between Dr. Barnados and Cancer Research in the ratio 3:5. How much money does each charity receive?

   b) Mae arian poced yr wythnos hon, sef £36 yn cael ei rannu rhwng Ann, John a Gary yn y gymhareb 2:3:4. Faint mae pob person yn ei dderbyn?
   Pocket money this week, a total of £36 is shared between Ann, John and Gary in the ratio 2:3:4. How much does each person receive?

   c) Mae swm o arian yn cael ei rannu rhwng Sion ac Emyr yn y gymhareb 5 : 3. Mae Sion yn derbyn £95. Faint oedd siâr Emyr?

   A sum of money was shared between Sion and Emyr in the ratio 5 : 3. Sion received £95. How much was Emyr's share?

   d)Mae arian yn cael ei rannu rhwng Alex, Beth a Chloe yn y gymhareb 2:5:9. Mae Beth yn derbyn £35. Faint mae pawb arall yn ei dderbyn?
   Money is split between Alex, Beth and Chloe in the ratio 2:5:9. Beth receives £35. How much do the others receive?

   e) Ar fferm mae tatws, moron a phys yn cael ei plannu yn y gymhareb 4:7:15. Mae'n plannu 1400 o moron. Faint o datws a phys gafodd ei blannu?
   On a farm potatoes, carrots and peas are planted in the ratio 4:7:15. If 1400 carrots were planted, how many potatoes and peas were planted?

① Rhannwch £80 yn y gymhareb 3:2. Ateb = $\frac{80}{5}$ = £16 (1 rhan)

Person 1 = 16 × 3 = £48

Person 2 = 16 × 2 = £32

② Rhannwch £140 yn y gymhareb 1:3:3

Ateb = Person 1 = 20 × 1 = £20

Person 2 = 20 × 3 = £60

Person 3 = 20 × 3 = £60

③ Mae ysgol wedi codi £600 ar gyfer elusen. Maent yn penderfynu rhannu'r arian rhwng Ymchwil Canser a Dr. Barnados yn y gymhareb o 3:2. Os yw ymchwil Canser yn derbyn £360, faint mae Dr Bernados yn derbyn?

Ateb = $\frac{600}{5}$ = £120 (1 rhan)

Dr Bernados = 2 × 120 = £240

Taflen Cymarebau

① a) $\frac{40}{5}$ = £8 (1 rhan)

Person 1 = 3 × 8 = £24

Person 2 = 2 × 8 = £16

b) $\frac{28}{7}$ = £4 (1 rhan)

Person 1 = 3 × 4 = £12

Person 2 = 4 × 4 = £16

c) $\frac{65}{5}$ = £13 (1 rhan)

Person 1 = 2 × 13 = £26

Person 2 = 3 × 13 = £39

d) $\frac{1040}{13}$ = £80 (1 rhan)

Person 1 = 5 × 80 = £400

Person 2 = 8 × 80 = £640

e) $\frac{27}{9}$ = £3 (1 rhan)

Person 1 = 5 × 3 = £15

Person 2 = 3 × 3 = £9

Person 3 = 1 × 3 = £3

② $\frac{272}{8}$ = £34 (1 than)

Person 1 = 3 × 34 = £102
Person 2 = 5 × 34 = £170

b) $\frac{36}{9}$ = £4 (1 than)

Person 1 = 2 × 4 = £8
Person 2 = 3 × 4 = £12
Person 3 = 4 × 4 = £16

c) $\frac{95}{5}$ = £19 (1 than)

Person 2 = 3 × 19 = £57

d) $\frac{35}{5}$ = £7 (1 than)

Person 1 = 2 × 7 = £14
Person 3 = 9 × 7 = £63

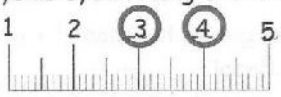
e) $\frac{1400}{7}$ = 200 (1 than)

Tatus = 4 × 200 = 800
Pips = 15 × 200 = 3000

Clip 102: Cynnig a Gwella

**Enghraifft:**

1. Defnyddiwch y dull **cynnig a gwella** i ddod o hyd i datrysiad sydd rhwng **3** a **4** i 1 lle degol i'r hafaliad $x^2 = 15$.




$3^2 = 9$ ⟶ Rhy Bach
$4^2 = 16$ ⟶ Rhy Fawr

Rydych am ddarganfod rhif sydd rhwng 3 a 4 sydd yn rhoi mor agos at 15 ag chi'n gallu.

$3.5^2 = 12.25$ ⟶ Rhy Bach
$3.8^2 = 14.44$ ⟶ Rhy Bach (ond agos iawn)
$3.9^2 = 15.21$ ⟶ Rhy Fawr (ond agos iawn)

**Felly yr ateb yw 3.9 i 1 lle degol**, achos bod 15.21 yn agosach i 15 nag 14.44.

**Ymarfer A**

1. Darganfyddwch yr ateb i bob un o'r hafaliadau canlynol gan ddefnyddio dulliau cynnig a gwella. Mae'r ateb o fewn yr amrediad sydd wedi ei nodi bob tro. Ysgrifennwch yr atebion yn gywir i 1 lle degol.

a.) $x^2 = 56$, mae'r ateb rhwng 7 a 8

| $x$ | $x^2$ | Rhy bach/Rhy fawr? |
|---|---|---|
| 7 | 49 | Rhy Bach |
| 7.1 | 50.41 | ~~Mawr~~ Bach |
| 7.2 | 51.84 | Bach |
| 7.3 | 53.29 | Bach |
| 7.4 | 54.76 | B |
| 7.5 | 56.25 | M |
| 7.6 | | |

Felly yr ateb yw 7.5 i 1 lle ddegol.

b.) $x^2 = 47$, mae'r ateb rhwng 6 a 7.

| $x$ | $x^2$ | Rhy bach/Rhy fawr? |
|---|---|---|
| 6 | 36 | Rhy Bach |
| 6.2 | 38.44 | Bach. |
| 6.4 | | |
| 6.6 | 43.56 | B |
| 6.8 | 46.24 | B |
| 6.9 | 47.61 | M |
| 7 | | |

Felly yr ateb yw 6.9 i 1 lle degol.

c.) $x^2 + 3 = 120$, mae'r ateb rhwng 10 ac 11

| $x$ | $x^2 + 3$ | Rhy bach/Rhy fawr? |
|---|---|---|
| 10 | 103 | Rhy Bach |
| 10.5 | 113.25 | B. |
| 10.6 | 115.36 | B. |
| 10.8 | 119.64 | B |
| 10.9 | 121.81 | M |
| ----- | | |

Felly yr ateb yw 10.8 i 1 lle ddegol.

yn rhoi ateb agosach i 120

ch.) $x^2 - 2 = 95$, mae'r ateb rhwng 9 a 10.

| $x$ | $x^2 - 2$ | Rhy bach/Rhy fawr? |
|---|---|---|
| 9 | 79 | Rhy Bach |
| 9.2 | 82.64 | B |
| 9.4 | 86.36 | B |
| 9.6 | 90.16 | B |
| 9.8 | 94.04 | B |
| 9.9 | 96.01 | M. |
| | | |

Felly yr ateb yw 9.8 i 1 lle degol.

**Lefel 6**

"Defnyddio dulliau cynnig-a-gwella sy'n cynnwys brasamcanu a threfnu degolion"

Nod y Hers: Cynnig a gwella

① Dafnyddiwch

$x^3 - 7x = 120$

Gan mai cm ydy'r ateb
yn lle degol

| $x$ | $x^3 - 7x = 120$ | rhy fach neu rhy fawr |
|---|---|---|
| 10 | $10^3 - 7 \times 10 = 930$ | 930 rhy fawr |
| 5 | $5^3 - 7 \times 5 = 90$ | rhy fach |
| 6 | $6^3 - 7 \times 6 = 174$ | rhy fawr |
| 5.5 | $5.5 - 7 \times 5.5 = 127.8$ | rhy fawr |
| 5.4 | $5.4 - 7 \times 5.4 = 99.6$ | rhy fach |
| 5.45 | $5.45 - 7 \times 5.45 = 123.$ | rhy fawr |

$= x = 5.4$

② Datrysiad

$x^3 - 3x = 93$

| $x$ | $x^3 - 3x = 93$? | rhy fawr / rhy faen |
|---|---|---|
| 7 | $7^3 - 3 \times 7 = 322$ | rhy fawr |
| 5 | $5^3 - 3 \times 5 = 100$ | rhy fawr |
| 4 | $4^3 - 3 \times 4 = 52$ | rhy faen |
| 4.5 | $4.5^3 - 3 \times 4.5 = 77.6$ | rhy faen |
| 4.7 | $4.7^3 - 3 \times 4.7 = 89.7$ | rhy faen |
| 4.8 | $4.8^3 - 3 \times 4.8 = 96.1$ | rhy fawr |
| 4.75 | $4.75 - 3 \times 4.75 = 92.9$ | rhy faen |

$x = 4.8$ ✓

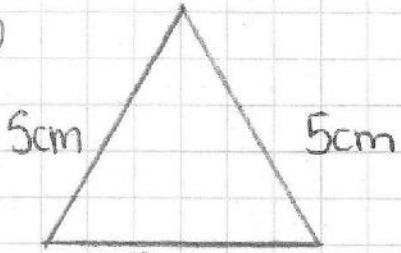
Gwaith Dosbarth 6/1/15

Cwrs Cyntaf: Labelwch y canlynol:

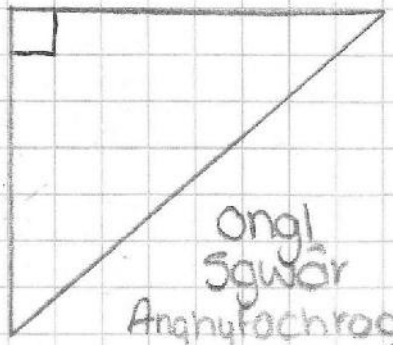
| | |
|---|---|
| Hafalochrog | 3 ochr hafal |
| Anghyfochrog | dim ochr hafal |
| Isosgeles | 2 ochr hafal |
| ongl sgwâr | 1 ongl 90° |
| ongl lem | 3 ongl lem (llai na 90°) |
| ongl aflem | 1 ongl Aflem (mwy na 90°) |

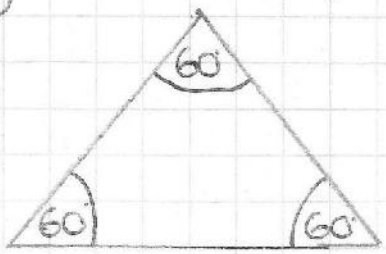
① 

Isosgeles/ongl lem ✓

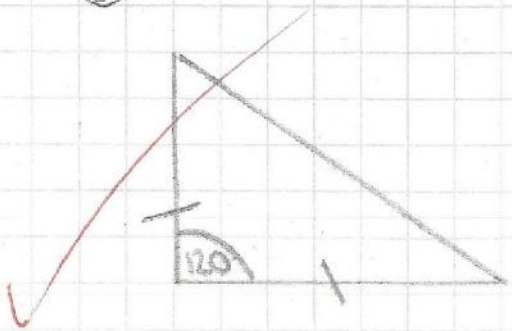
② 

Hafalochrog
ongl lem ✓

③ 
ongl sgwâr
Anghyfochrog ✓

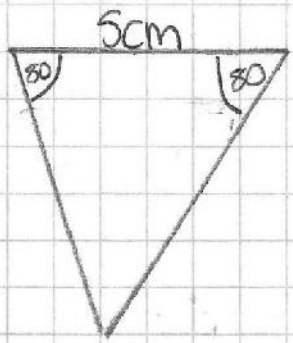
④ 

Ongl lem
Hafalochrog ✓

⑤ 

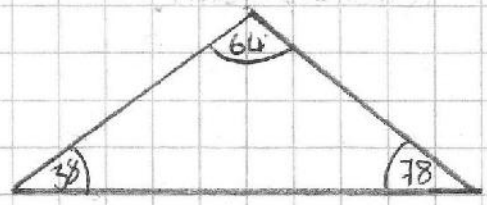
Ongl aflem
Isosgeles ✓

⑥



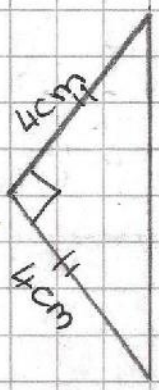

Isosgeles
Ongl Lem ✓

⑦




Ongl Lem
Anghyfochrog ✓

⑧



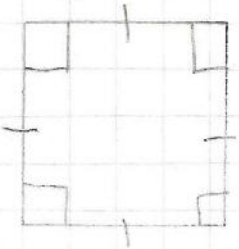

ongl sgwâr
Isosgeles ✓

Gwaith Dosbarth 7/1/15

Nod y wers: Adnabod siapau 2D

Ⓐ Pedrochrau

• Sgwâr



• Petryal



• corneli ongl sgwâr
• ochrau cyferbyn yr un hyd a paralel

• Rhombws



• Pob ochr yr un hyd
• onglau cyferbyn hafal

• Paralelogram



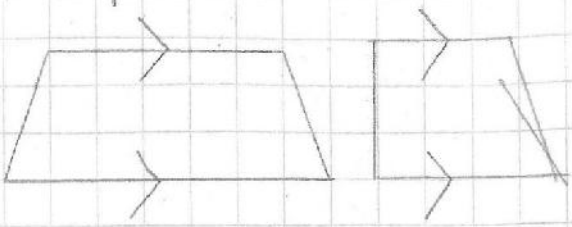
• 2 bâr o ochrau paralel ac yr un hyd
• onglau cyferbyn hafal

• Barcud



• 2 bâr o ochrau cyfagos hafal (yr un hyd)
• 1 llinell cymesuredd
• 1 pâr o onglau hafal

• Trapesiwm



• 1 pâr o ochrau paralel

• Enwau Polygonnau

• 3 ochr - Triongl
• 4 ochr - Pedrochrog
• 5 ochr - Pentagon
• 6 ochr - Hecsagon
• 7 ochr - Heptagon
• 8 ochr - Octagon
• 9 ochr - nonagon
• 10 ochr - Decagon

**Lefel 6**

"Defnyddio priodweddau pedrochrau wrth ddosbarthu gwahanol fathau o bedrochr"

**Rhaglen Astudio Bl.8**
**(yn awgrymu L5+)**

"Categoreiddio pedrochrau"

**Quadrilaterals.**

Copy the following quadrilaterals. Next to them put the word that best describes it from the list.

| RHOMBUS | PARALLELOGRAM | SQUARE |
|---|---|---|
| KITE | RECTANGLE | TRAPEZIUM |

1). Barcud ✓

2). Sgwâr ✓

3). Trapesiwm ✓

4). Petryal ✓

5). Rhombws ✓

6). Trapesiwm ✓

7). Paralelogram ✓

8). Barcud ✓

9). Paralelogram ✓

10). Trapesiwm ✓

11). Petryal ✓

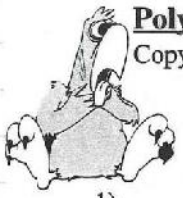
12). Rhombws ✓

13). Sgwâr ✓

14). Trapesiwm ✓

15). Barcud ✓

16). Paralelogram ✓



**Polygons.**

Copy the following polygons. Next to them put the word that best describes it from the list below.

| DECAGON | HEXAGON | QUADRILATERAL | OCTAGON |
|---|---|---|---|
| NONAGON | PENTAGON | HEPTAGON | |

1). Heptagon ✓

2). Pentagon ✓

3). Pedrochr ✓

4). Degagon ✓

5). octagon ✓

6). Hecsagon ✓

7). Degagon ✓

8). Pedrochr ✓

9). Octagon ✓

10). Heptagon ✓

11). Pentagon ✓

12). Hecsagon ✓

13). Pedrochr ✓

14). nonagon ✓

15). Hecsagon ✓

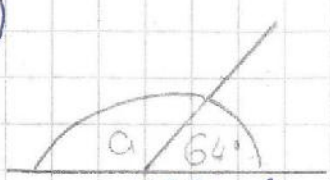
16). nonagon ✓

**Lefel 6**

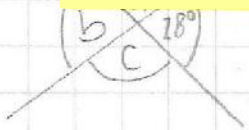
"Datrys problemau drwy ddefnyddio priodweddau ongl polygonau a phriodweddau llinellau sy'n croestorri a llinellau paralel"

Gwaith Dosbarth

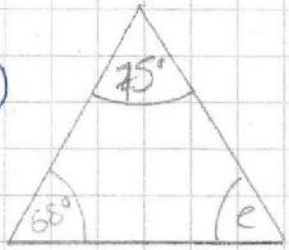
Nod y wers: Cyfrifo me
amryw diagram



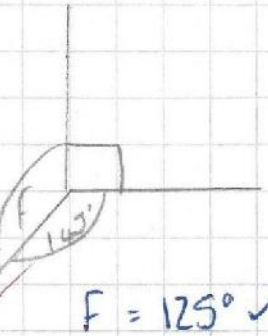

a = 116° ✓



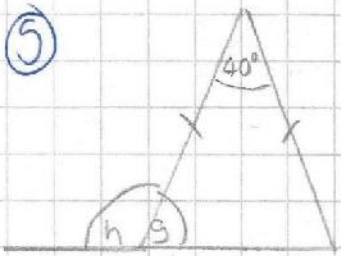

c = 152° ✓
d = 152° ✓



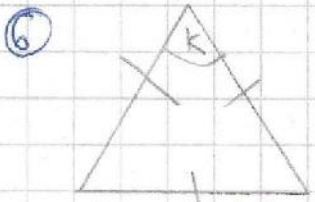

C = 37° ✓



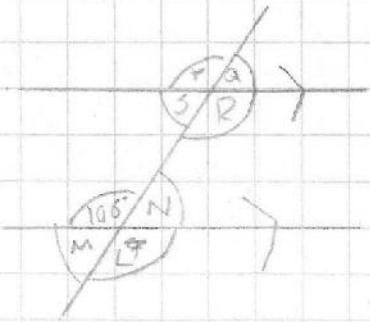

F = 125° ✓



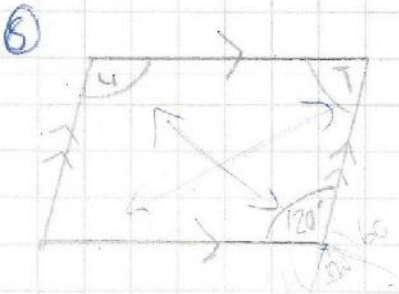

g = 70° ✓
h = 110° ✓



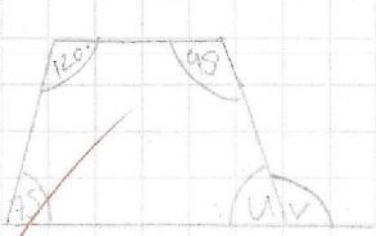

K = 60° ✓



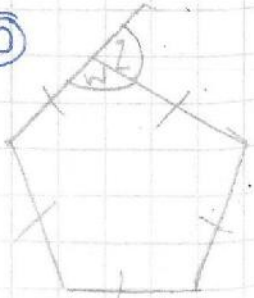

L = 106° ✓ S = 74° ✓
M = 74° ✓ P = 106° ✓
N = 74° ✓ Q = 74° ✓
R = 106




T = 60° ✓
U = 120° ✓




U = 70° ✓
V = 110°

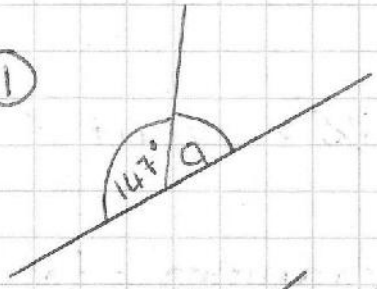



W = 108° ✓
Z = 72° ✓

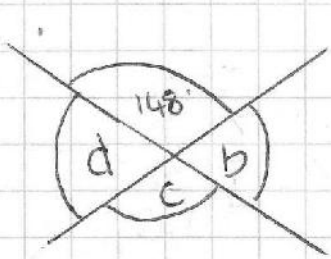
Σ = 360 ÷ 5

Gwaith Dosbarth 16.1.15

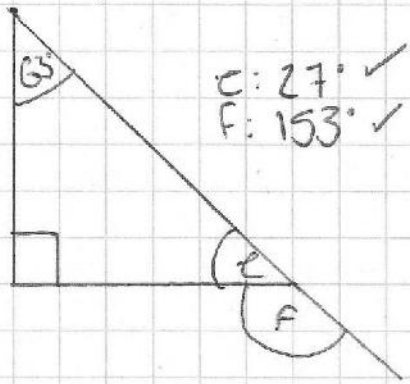
Nod y wers: Cyfrifo yr onglau sydd ar goll

① 

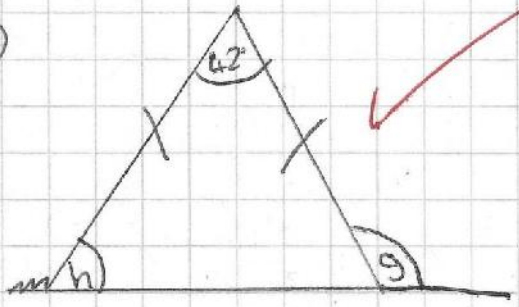

a: 33° ✓

② 

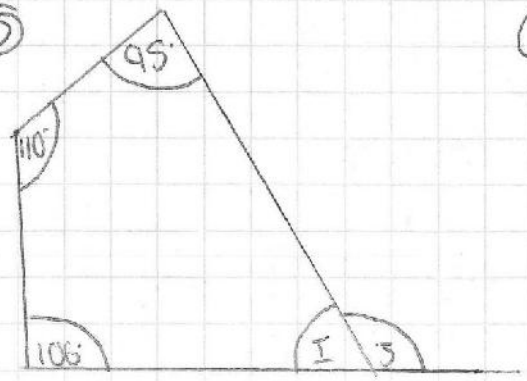

c: 148° ✓ d: 32° ✓ b: 32° ✓

③ 

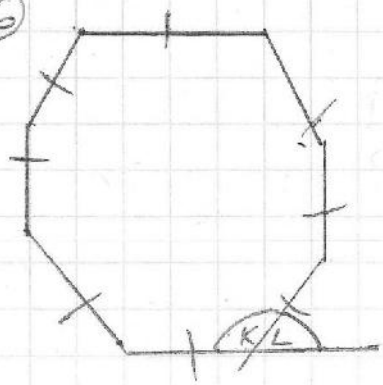

e: 27° ✓
F: 153° ✓

④ 


h: 69° ✓ g: 111° ✓

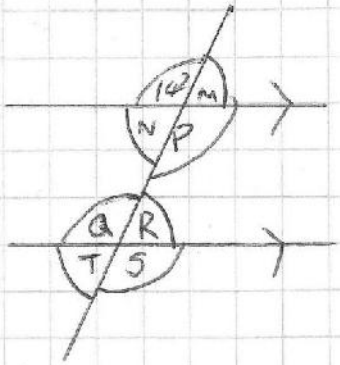
⑤ 


I: 49° ✓
J: 131° ✓

⑥ 

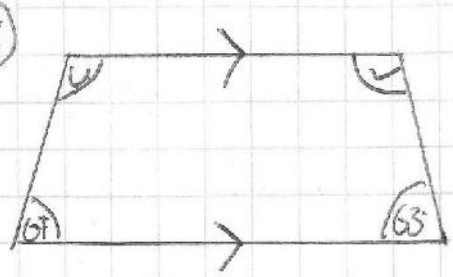

L: 45° ✓
K: 135° ✓

7)




M: 38° ✓ Q: 142° ✓
N: 38° ✓ R: 38° ✓
P: 142° ✓ T: 38° ✓
S: 142° ✓

8)




U: 113° ✓ V: 117° ✓

Ardderchog - tactus fel arfer.

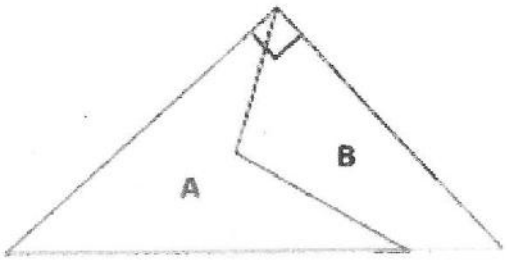
E Powell
16/1/15.

**Lefel 6**

"Datrys problemau cymhleth drwy eu rhannu'n dasgau llai"

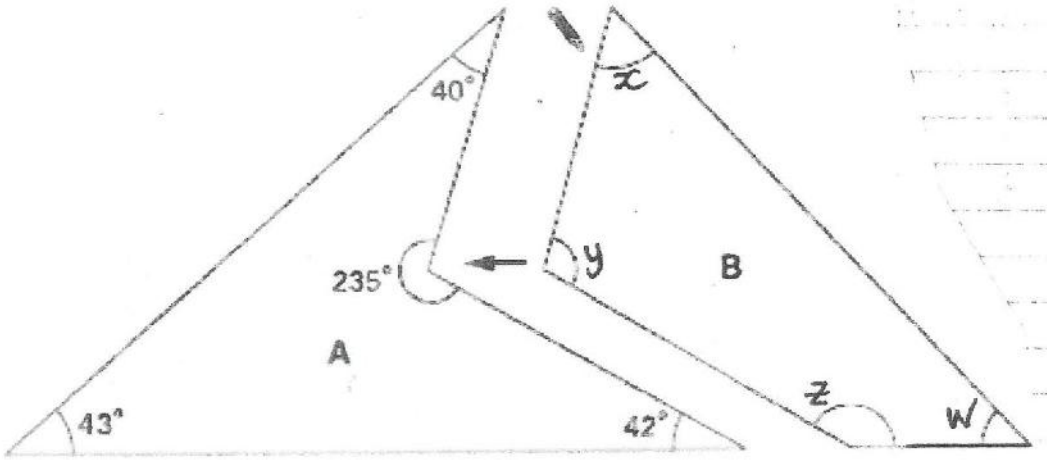
# Cyfrifo Onglau

(1) The drawing shows how shapes A and B fit together to make a **right-angled** triangle.




Work out the size of each of the angles in shape B.

Write them in the correct place in shape B below.




$y = 360 - 235$
$y = 125°$ (onglau mewn cylch $= 360°$)

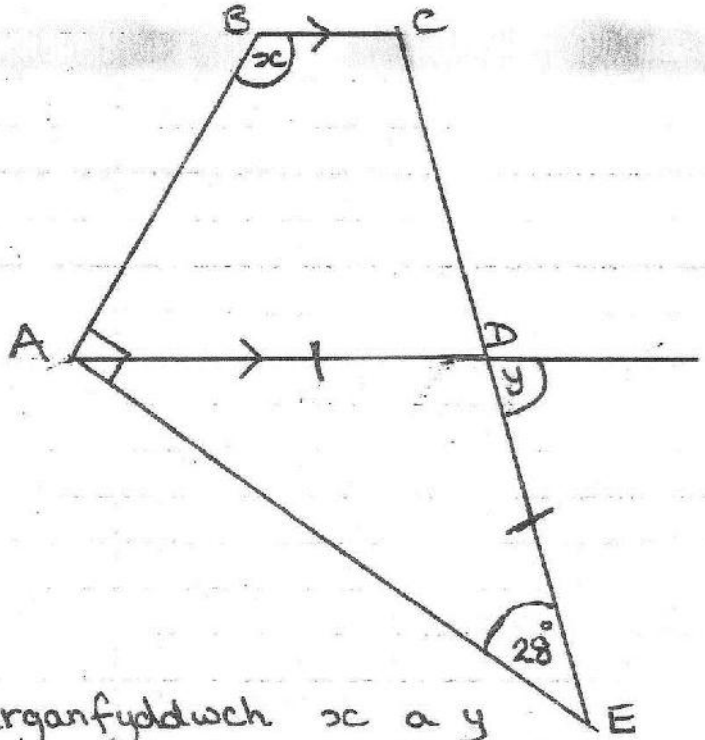
$Z = 180 - 42$
$= 138°$ (onglau ar linell syth $= 180°$)

$x = 90 - 40$
$= 50°$ (Mae'r triongl yn driongl ongl sgwâr)

$W = 360 - 50 - 138 - 125$
$= 47°$ (onglau pedrochr $= 360°$)

GWIRIO : $43 + 47 + 90 = 180°$ (onglau $\Delta = 180°$)

(2)




Darganfyddwch x a y gan gyfiawnhau eich atebion.

$D\hat{A}E = 28°$ (Mae triongl ADE yn driongl isosgeles)

$B\hat{A}D = 90 - 28°$
$= 62°$ (Mae ongl $B\hat{A}E = 90°$)

$C\hat{B}A = 180 - 62°$
$= 118°$ (Mae ongl mewnol yn adio i $180°$)

$\therefore \quad x = 118°$

$E\hat{D}A = 180 - 28 - 28$
$= 124°$ (Onglau triongl $= 180°$)

$y = 180 - 124$
$= 56°$ (onglau ar llinell syth $= 180°$)

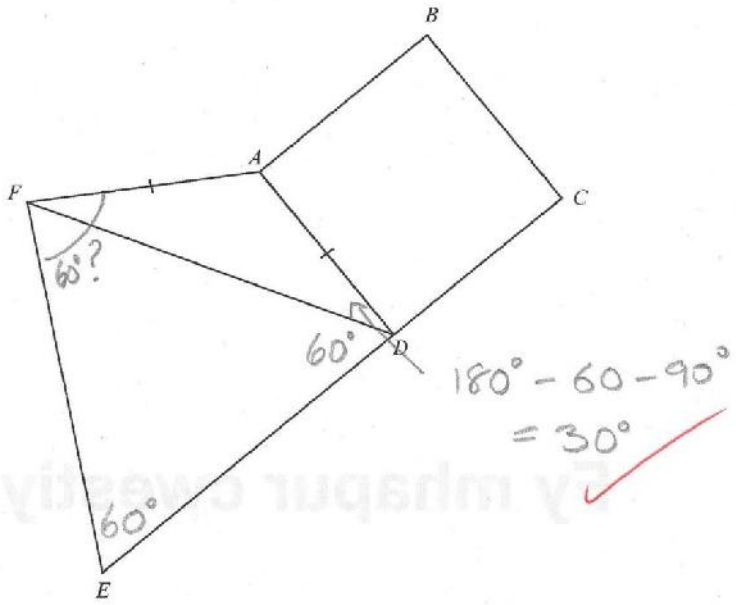
$\therefore y = 56°$

Estynedau clir - Dal ati

**1.**

Sgwâr yw $ABCD$.
Mae'r triongl $DEF$ yn hafalochrog.
Mae'r triongl $AFD$ yn isosgeles gydag $AF = AD$.
Mae $EDC$ yn llinell syth.

**Gan ddangos eich holl gamau,** cyfrifwch faint $A\hat{F}E$.



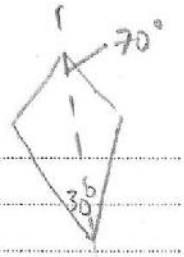

*Nid yw'r diagram wedi'i luniadu wrth raddfa*

$60° + A\hat{F}D$

$60° + 30° = 90°$

**2.**

*(a)* Y ddwy ongl leiaf mewn barcut yw 30° a 70°.
Cyfrifwch faint onglau craill y barcut hwn.




360° - 30° - 70°

260°

260° ÷ 2 = 130°

[3]

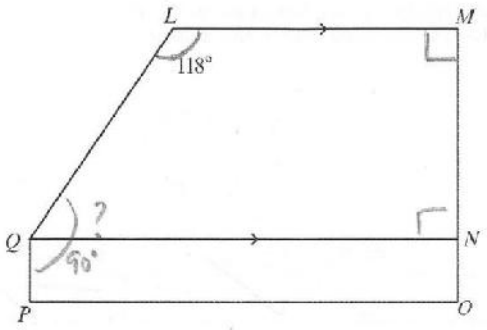
*(b)* Lluniadwch *(draw)* enghraifft o drapesiwm sydd â chroesliniau hafal.
Rhaid i chi ei gwneud yn glir pam mae'r croesliniau'n hafal.

[3]

**3.**

© Hawlfraint WJEC CBAC Cyf. Cedwir pob hawl

3.




*Nid yw'r diagram wedi'i lunio'n wrth raddfa*

Mae'r diagram yn dangos ochr cwt *(hutch)* cwningen.
Mae $LM$ yn baralel i $QN$.
Petryal yw $PQNO$.
Yr ongl $Q\hat{L}M$ rhwng rhan ucha'r cwt a'r blaen yw 118°.

*(a)* Cyfrifwch faint ongl $L\hat{Q}P$.

$360° - 90° - 90 - 118°$

$62°$

$90 + 62° = 152°$

© Hawlfraint WJEC CBAC Cyf. Cedwir pob hawl

**4.**

Mae Enzo yn cael cliwiau i'w helpu i ddatrys problem.

**Cliwiau:**

- Mae'r siâp yn bolygon
- Mae nifer yr ochrau sydd gan y siâp yn odrif
- Nid yw'r siâp yn driongl
- Mae gan y siâp lai na 7 ochr
- Mae tair o'r onglau mewnol yn mesur 106° yr un
- Mae'r onglau eraill i gyd yn cael eu marcio gan y llythyren $x$

Datryswch broblem Enzo sef darganfod maint $x$.

Polygon = ~~5~~ ochr triongl ✓
5 ← Pentagon ✓

~~x~~
~~x~~ ✓
~~x~~
⋮

106° 106° 106° x x ✓

180 × 3 = 540°

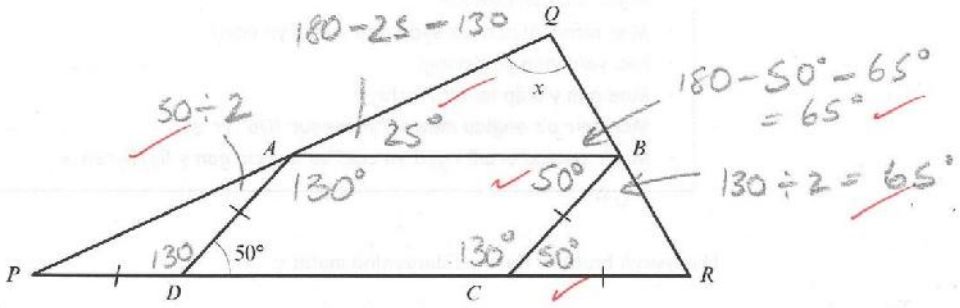
540° − 318° = 222

222 ÷ 2 = 111

✓ Da.

**5.**

Mae pedwar fertig y paralelogram $ABCD$ ar ochrau'r triongl $PQR$ fel sy'n cael ei ddangos yn y diagram.
Mae'r ochrau $PD$, $AD$, $BC$ ac $CR$ yn hafal.
O wybod bod $A\hat{D}C = 50°$, darganfyddwch werth $x$.
**Rhaid i chi ddangos manylion llawn am sut gwnaethoch gael eich ateb.**




*Nid yw'r diagram wedi'i luniadu wrth raddfa*

$x = 180 - 25 - 65$

$= 90°$

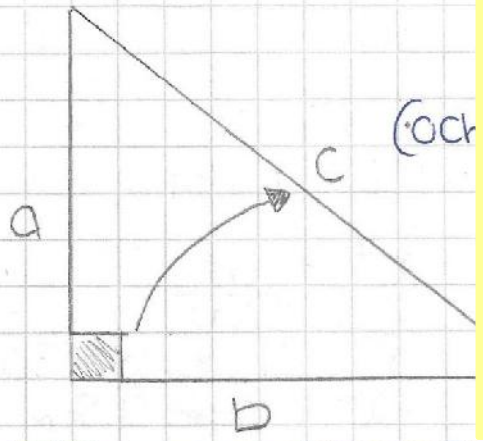
(6)

Gwaith Dosbarth 16/1/15

Nod y wers: Deall a defnyddio Pythagoras

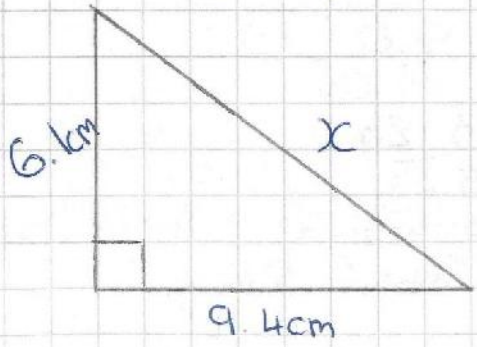
**Lefel 7**

"Defnyddio theorem Pythagoras mewn dau ddimensiwn"




PYTHAGARAS: $a^2 + b^2 = c^2$

① Darganfyddwch x i un lle degol




$a^2 + b^2 = c^2$ (Pythagoras)

$6.1^2 \quad 9.4^2 = x^2$

$(6.1 \times 2) \quad (9.4 \times 9.4) = x^2$

$37.21 + 88.36 = x^2$

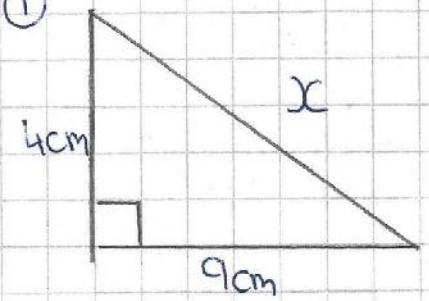
$x^2 = 125.57$

$x = \sqrt{125.56}$

$x = 11.20580207$

$x = 11.2cm$

# YMARFER

① 


$a^2 + b^2 = c^2$ (pythagoras)

$4^2 + 9^2 = x^2$

$(4 \times 4) \quad (9 \times 9) = x^2$

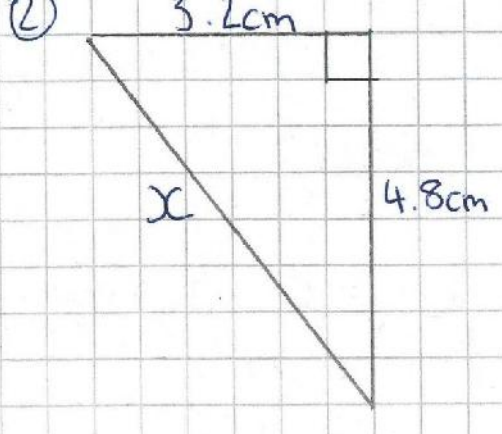
$16 + 81 = x^2$

$x^2 = 97$

$x = \sqrt{97}$

$x = 9.848857802$

$x =$ 9.8cm ✓

② 


$a^2 + b^2 = c^2$ (pythagoras)

$3.2^2 + 4.8^2 = x^2$

$(3.2 \times 3.2) \quad (4.8 \times 4.8) = x^2$

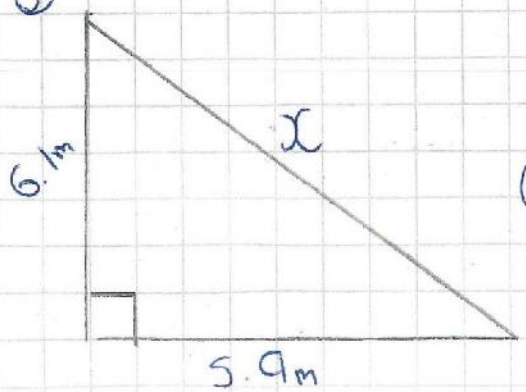
$10.24 + 23.04 = x^2$

$x^2 = 33.28$

$x = \sqrt{33.28}$

$x =$ 5.768887041

$x =$ 5.8cm ✓

③ 


$a^2 + b^2 = c^2$ (pythagoras)

$6.1^2 + 5.9^2 = x^2$

$(6.1 \times 6.1) \quad (5.9 \times 5.9)$

$37.21 + 34.81$

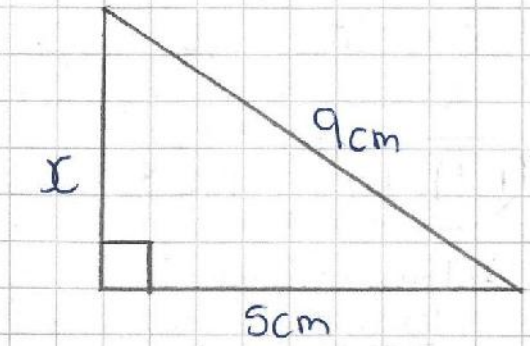
$x^2 = 72.02$

$x = \sqrt{72.02}$

$x = 8.486459804$

$x =$ 8.5m ✓

## Esiyniad




$a^2 + b^2 = c^2$ (pythagoras)

$x^2 + 5^2 = 9^2$

$(5 \times 5) \quad (9 \times 9)$

$x^2 + 25 = 81$

$x^2 = 81 - 25$

$x^2 = 56$

$x = \sqrt{56}$

$x = 7.483314774$

$x = 7.5cm$ ✓

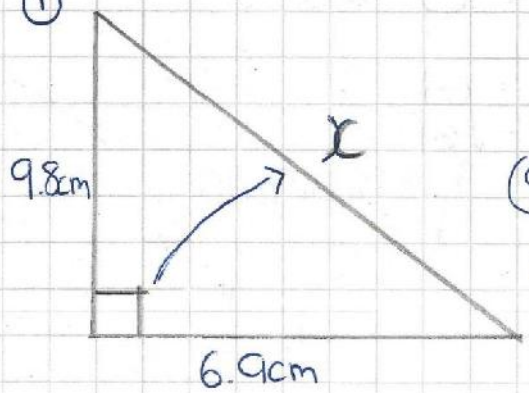
---

## Gwaith Doobarth

27/1/15

**Curs Cyntaf:** Darganfyddwch x i 1 lle degol

① 




$a^2 + b^2 = c^2$ (pythagoras)

$9.8^2 + 6.9^2 = x^2$

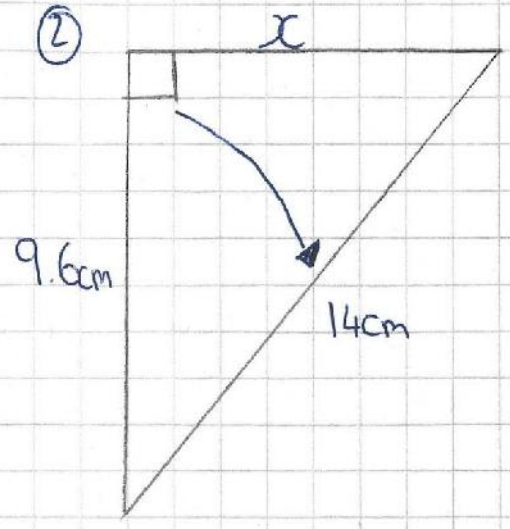
$(9.8 \times 9.8) \quad (6.9 \times 6.9)$

$96.04 + 47.61 = x^2$

$x^2 = 143.65$

$x = \sqrt{11.98540779}$

$x = 12.0cm$ ✓

② 


$a^2 + b^2 = c^2$ (pythagoras)

$x^2 + 9.6^2 = 14^2$

$x^2 \quad (9.6 \times 9.6) = (14 \times 14)$

$x \quad + 92.16 = 196$

$x^2 = 196 - 92216$

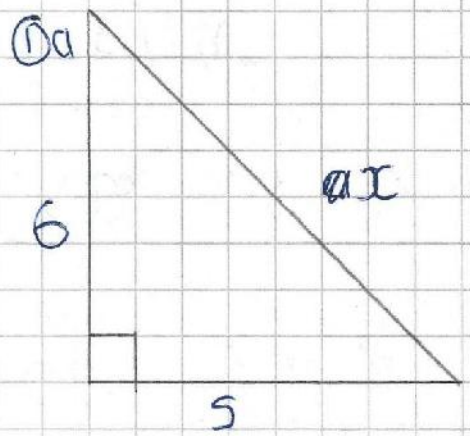
$x = 103.84$

$x = \sqrt{103.84}$

$x = 10.19019136$

$x = 10.2\text{cm}$ ✓

Ymarker

①a 


$a^2 + b^2 = c^2$

$6^2 + 5^2 = x^2$

$(6 \times 6) \quad (5 \times 5) = x^2$

$36 + 25 = x^2$

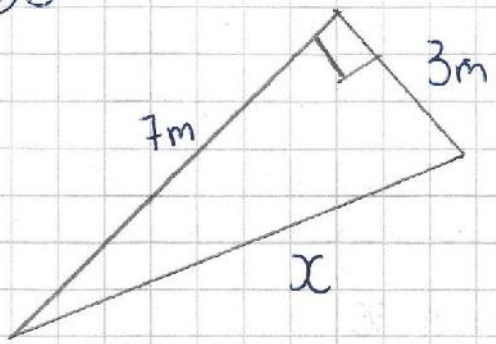
$x^2 = 61$

$x = \sqrt{61}$

$x = 7.810249676$

$x = 7.8$

② b




$a^2 + b^2 = c^2$

$3^2 + 7^2 = x^2$

$(3 \times 3) + (7 \times 7) = x^2$

$9 + 49 = x^2$

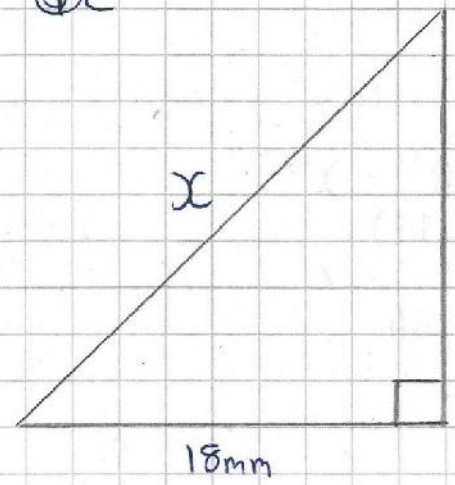
$x^2 = 58$

$x = \sqrt{58}$

$x = 7.615773106$

$x = 7.6m$

③ c




$a^2 + b^2 = c^2$

$16^2 + 18^2 = x^2$

$(16 \times 16) \quad (18 \times 18)$

$256 + 324 = x^2$

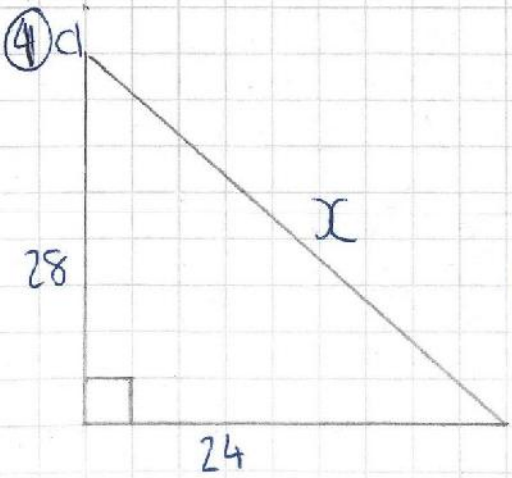
$x^2 = 580$

$x = \sqrt{580}$

$x = 24.08318916$

$x = 24.1mm$

④ d




$a^2 + b^2 = c^2$

$28^2 + 24^2 = x^2$

$(28 \times 28) + (24 \times 24)$

$784 + 576 = x^2$

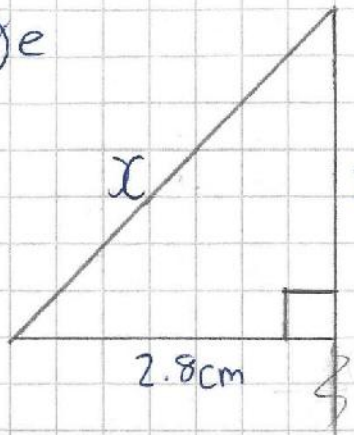
$x^2 = 1360$

$x = \sqrt{1360}$

$x = 36.87817783$

$x = 36.9$

(7) e




$a^2 + b^2 = c^2$

$2.8^2 + 3.4^2 = x^2$

$(2.8 \times 2.8) + (3.4 \times 3.4)$

$7.84 + 11.56$

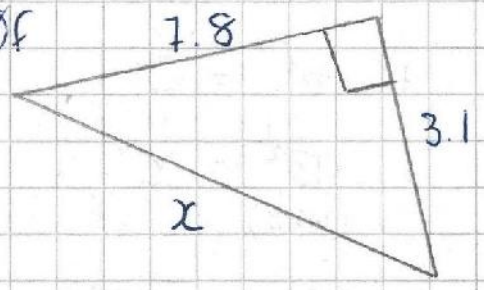
$x^2 = 19.4$

$x = \sqrt{19.4}$

$x = 4.404543109$

$x = 4.4\text{cm}$

(8) f




$a^2 + b^2 = c^2$

$3.1^2 + 7.8^2 = x^2$

$(3.1 \times 3.1) + (7.8 \times 7.8)$

$9.61 + 60.84$

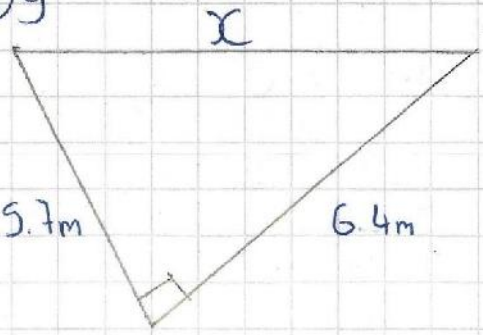
$x^2 = 70.45$

$x = \sqrt{70.45}$

$x = 8.393449827$

$x = 8.4$

(9) g




$a^2 + b^2 = c^2$

$5.7^2 + 6.4^2 = x^2$

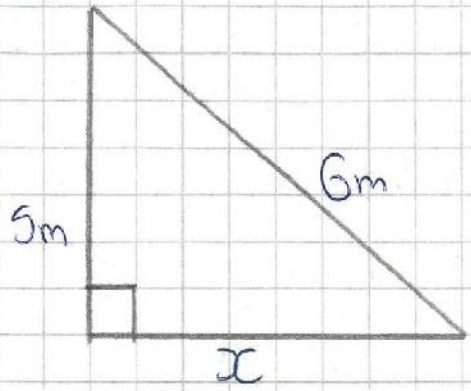
$(5.7 \times 5.7) + (6.4 \times 6.4)$

$32.49 + 40.96$

$x^2 = 73.45$

$x = 8.6$

2.a




$a^2 + b^2 = c^2$

$5^2 + x^2 = 6^2$

$25^2 + x^2 = 36^2$

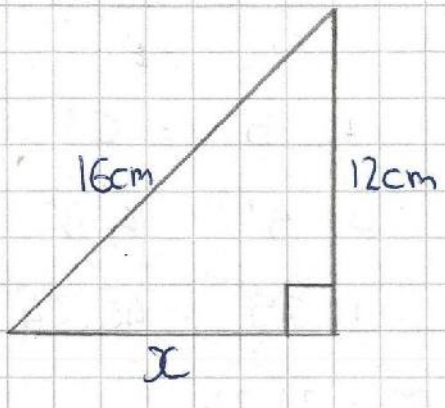
$x^2 = 36 - 25 = 11$

$x = \sqrt{11}$

$x = 3.31662479$

$x = 3.3m$

2.b




$a^2 + b^2 = c^2$

$12^2 + x^2 = 16^2$

$144 + x = 256$

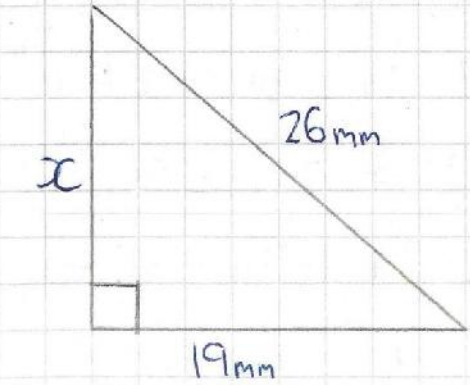
$x^2 = 112$

$x = \sqrt{112}$

$x = 10.58300524$

$x = 10.6cm$

2.c




$a^2 + b^2 = c^2$

$x^2 + 19^2 = 26^2$

$x^2 + 361 = 676$

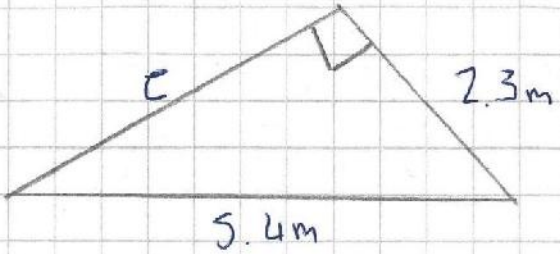
$x^2 = 315$

$x = \sqrt{315}$

$x = 17.74823935$

$x = 17.7mm$

2.d




$a^2 + b^2 = c^2$

$2.3^2 + x^2 = 5.4^2$

$5.29 + x^2 = 29.16$

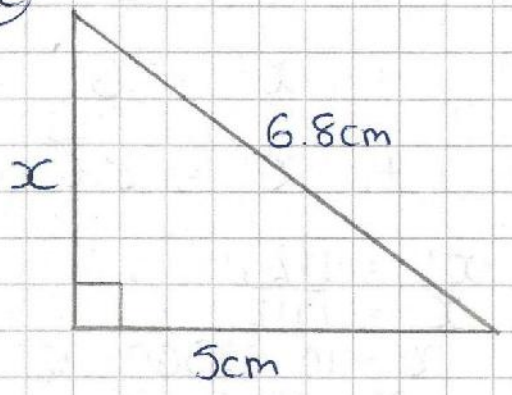
$x = 23.91$

$x = \sqrt{23.91}$

$x = 4.889785271$

$x = 4.9m$

2.e




$a^2 + b^2 = c^2$

$x^2 + 5^2 = 6.8^2$

$x + 25 = 46.24$

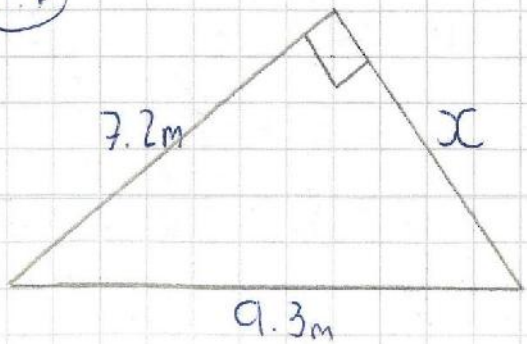
$x = 21.24$

$x = \sqrt{21.24}$

$x = 4.608687449$

$x = 4.6cm$

2.f




$a^2 + b^2 = c^2$

$x^2 + 7.2^2 = 9.3^2$

$x + 51.84 = 86.49$

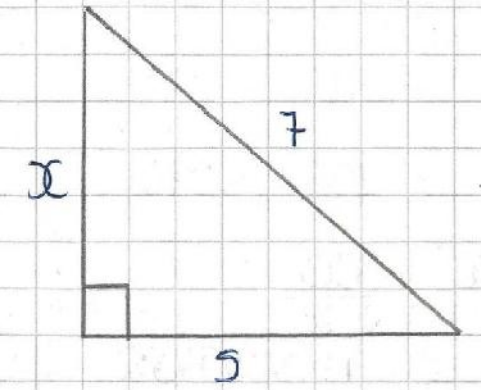
$x = 34.65$

$x = \sqrt{34.65}$

$x = 5.886425061$

$x = 5.9m$

3.a




$a^2 + b^2 = c^2$

$x^2 + 5^2 = 7^2$

$x + 25 = 49$

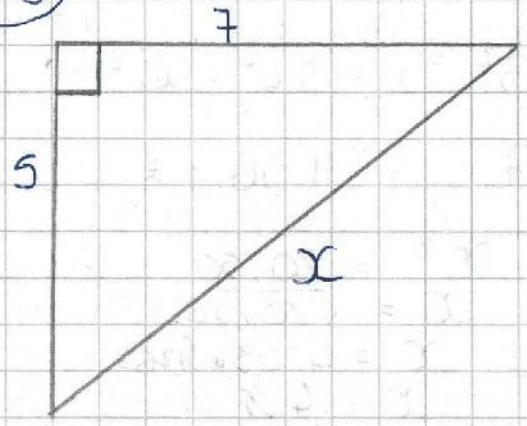
$x = 49 - 25 = 24$

$x = \sqrt{24}$

$x = 4.898979486$

$x = 4.9$

3.b




$a^2 + b^2 = c^2$

$5^2 + 7^2 = x^2$

$25 + 49 = x$

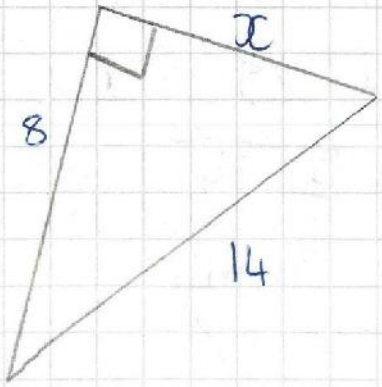
$x^2 = 74$

$x = \sqrt{74}$

$x = 8.602325267$

$x = 8.6$

3.c




$a^2 + b^2 = c^2$

$x^2 + 8^2 = 14^2$

$x + 64 = 196$

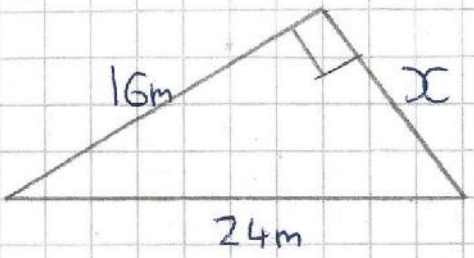
$x = 132$

$x = \sqrt{132}$

$x = 11.48912529$

$x = 11.5$

3.d




$a^2 + b^2 = c^2$

$x^2 + 16^2 = 24^2$

$x + 256 = 576$

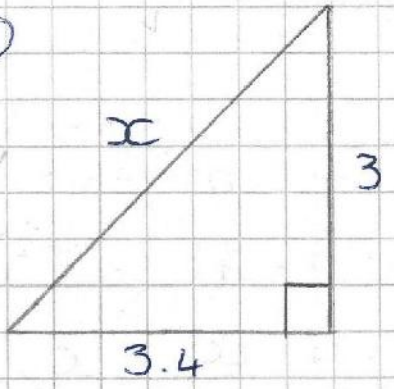
$x^2 = 320$

$x = \sqrt{320}$

$x = 17.88854382$

$x = 17.9m$

3.e




$a^2 + b^2 = c^2$

$3^2 + 3.4^2 = x^2$

$9 + 11.56 = x$

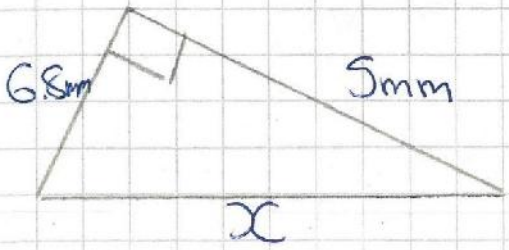
$x^2 = 20.56$

$x = \sqrt{20.56}$

$x = 4.534313682$

$x = 4.5$

3.f




$a^2 + b^2 = c^2$

$6.8^2 + 5^2 = x^2$

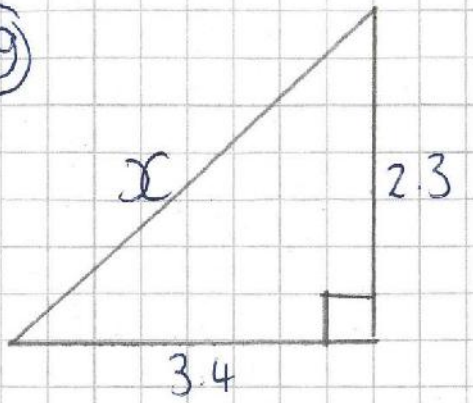
$46.24 + 25 = x$

$x^2 = \sqrt{71.24}$

$x = \sqrt{8.440379138}$

$x = 8.4mm$

3.9




$a^2 + b^2 = c^2$

$3.4^2 + 2.3^2 = x^2$

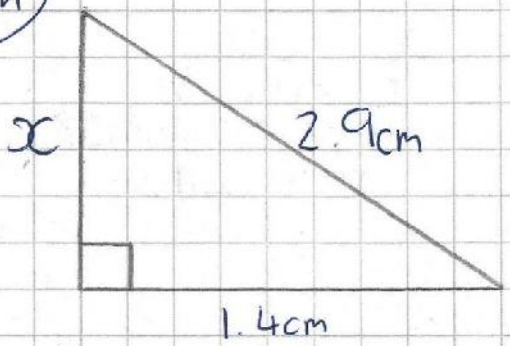
$11.56 + 5.29 = x$

$x^2 = 16.85$

$x = \sqrt{4.104875}15$

$x = 4.1$

3.h




$a^2 + b^2 = c^2$

$x^2 + 1.4^2 = 2.9^2$

$x + 1.96 = 8.41$

$x^2 = 6.45$

$x = \sqrt{6.45}$

$x = 2.53968502$

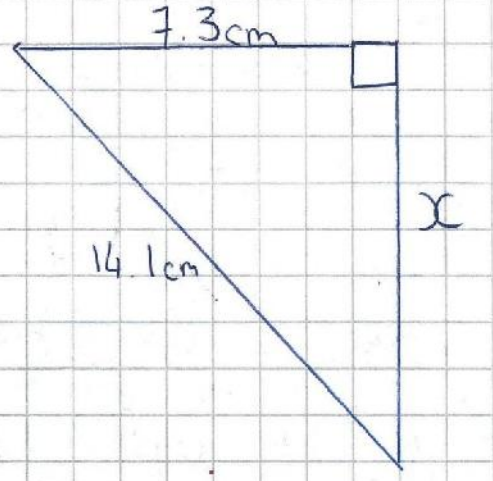
$x = 2.5cm$

Gwaith cartref ardderchog! Dal ati.

E. Powell
27/11/15

Gwaith Dosbarth 27/1/15

Cwrs Cyntaf: Darganfyddwch x i 1 lle degol

① 


$a^2 + b^2 = c^2$

$7.3^2 + x^2 = 14.1^2$

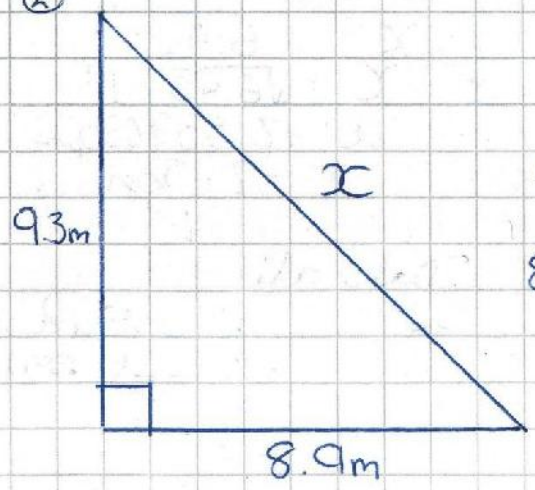
$53.29 + x = 198.81$

$x = 145.52$

$x = \sqrt{145.52}$

$x = 12.06316788$

$x = 12.1\text{cm}$

② 


$a^2 + b^2 = c^2$

$9.3^2 + 8.9^2 = x^2$

$86.49 + 79.21$

$x = 165.7$

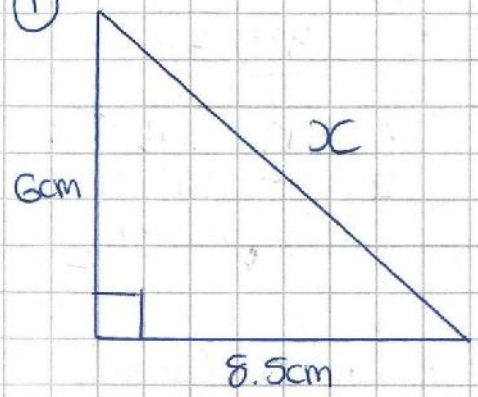
$x = \sqrt{165.7}$

$x = 12.8724512$

$x = 12.9\text{m}$

## Ymarfer

Darganfod $x$ i un lle degol

① 


$a^2 + b^2 = c^2$

$6^2 + 8.5^2 = x^2$

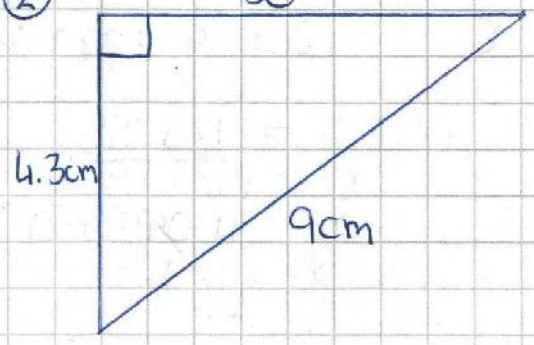
$36 + 72.25 = x$

$x^2 = 108.25$

$x = \sqrt{108.25}$

$x = 10.40432602$

$x = 10.4cm$

② 


$a^2 + b^2 = c^2$

$4.3^2 + x^2 = 9^2$

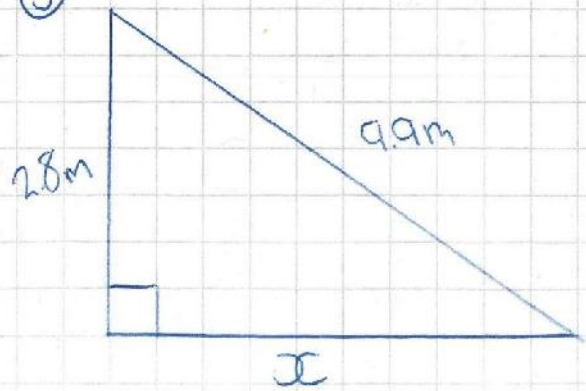
$18.49 + x = 81$

$x^2 = 62.51$

$x = \sqrt{62.51}$

$x = 7.906326351$

$x = 7.9cm$

③ 


$a^2 + b^2 = c^2$

$2.8^2 + x^2 = 9.9^2$

$7.84 + x = 98.01$

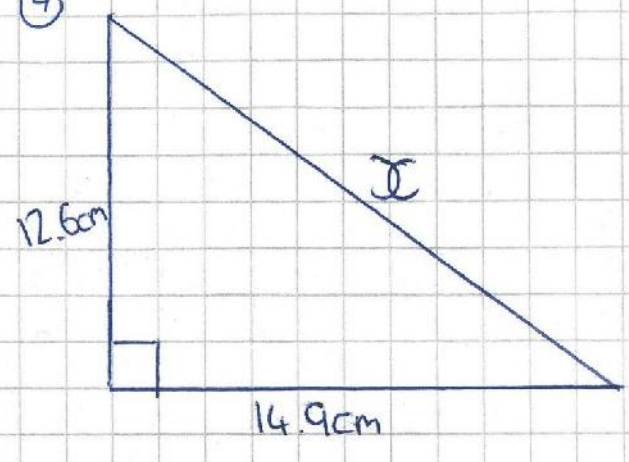
$x^2 = 90.17$

$x = \sqrt{90.17}$

$x = 9.495788854$

$x = 9.5m$

④




$a^2 + b^2 = c^2$

$12.6^2 + 14.9^2 = x^2$

$158.76 + 222.01 = x$

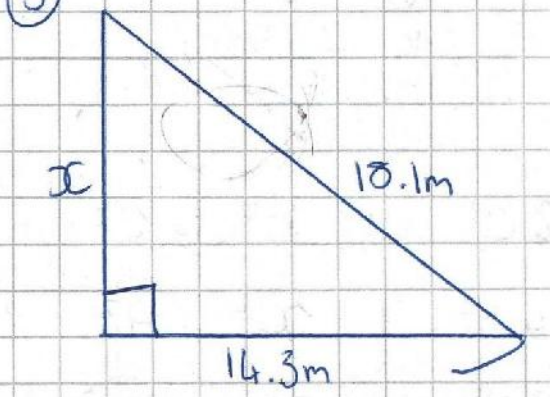
$x^2 = 380.77$

$x = \sqrt{380.77}$

$x = 19.51332878$

$x = 19.5cm$

⑤




$a^2 + b^2 = c^2$

$x^2 + 14.3^2 = 18.1^2$

$x + 204.49 = 327.61$

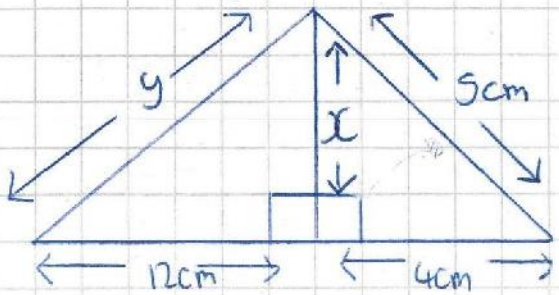
$x^2 = 123.12$

$x = \sqrt{123.12}$

$x = 11.09959521$

$x = 11.1m$

Eskyniad — Darganfyddwch 'x' a 'y'




$a^2 + b^2 = c^2$

$4^2 + x^2 = 5^2$

$16 + x = 25$

$x^2 = 9$

$x = \sqrt{9}$

$x = 3cm$

$a^2 + b^2 = c^2$

$12^2 + 3^2 = y^2$

$144 + 9 = y$

$x^2 = 153$

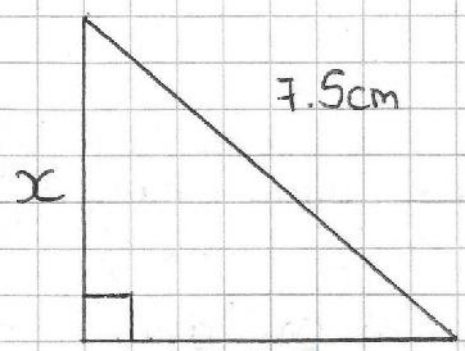
$x = 12.36931688$

$x = 12.4cm$

E. Powell Ardda

Gwaith Dosbarth 3/2/15

Cwrs Cyntaf: Darganfyddwch x

① 


$a^2 + b^2 = c^2$

$x^2 + 2.8^2 = 7.5^2$

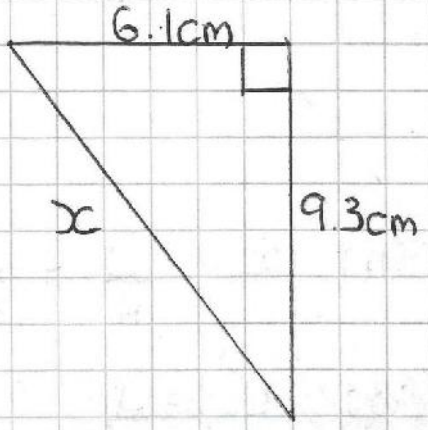
$x + 7.84 = 56.25$

$x^2 = 48.41$

$x = \sqrt{48.41}$

$x = 6.957729515$

$x$ ~~6~~ 7cm ✓

② 


$a^2 + b^2 = c^2$

$6.1^2 + 9.3^2 = x^2$

$37.21 + 86.49 = x$

$x^2 = 123.7$

$x = \sqrt{123.7}$

$x = 11.12265017$

$x = 11.1$cm ✓

Gwaith Dosbarth 25/2/15

Cwrs Cyntaf: Gwbl hewch [illegible] y patrwm a'r rhe[illegible]

1) 8, 11, 14, 17, 20, ✱

2) 6, 4, 2, 0, -2,

3) 2, 4, 8, 16, 32, 64

4) 1000, 100, 10, 1, 0.1, [illegible]

5) 1, 4, 9, 16, 25, 36 rhifau sgwâr ✓

6) 1, 1, 2, 3, 5, 8, 13, 21 adio'r ddau rhif blaenorol. ✓

**Lefel 6**

"Darganfod ac yn disgrifio mewn geiriau y rheol ar gyfer cynhyrchu'r term nesaf neu'r $n^{fed}$ term pan fydd honno'n un llinol"

---

Gwaith Dosbarth 27.2.12

Cwrs Cyntaf: Ysgrifenwch y 2 rhif nesaf o'r rheol mewn geiriau.

① 2, 5, 8, 11, 14 ✓, 17 ✓, +3 ✓

② 12, 9, 6, 3, 0 ✓, -3 ✓, -3 ✓

③ 3, 6, 12, 24, 48 ✓, 96 ✓, ×2 ✓

④ 400, 40, 4, 0.4 ✓, 0.04 ✓, ÷10 ✓

⑤ -2, 4, -8, 16, -32 ✓, 64 ✓ ×-2 ✓

⑥ 40, 20, 10, 5, 2.5 ✓, 1.25 ✓ ÷2 ✓

⑦ 1, 4, 9, 16, 25 ✓, 36 ✓, rhifau sgwâr ✓

[illegible] ✓ [illegible] ✓ [illegible] rhif blaenorol. ✓

Nod y wers: Darganfod n^fed terme dilyniant

① 3, 5, 7, 9, 11, 13, 15 — $2n + 1$ ✓

② 2, 4, 6, 8, 10... — $2n$ ✓

③ 4, 6, 8, 10, 12... — $2n + 2$ ✓

④ 1, 3, 5, 7, 9... — $2n - 1$ ✓

⑤ 6, 10, 14, 18... — $4n + 2$ ✓

⑥ 11, 14, 17, 20... — $3n + 8$ ✓

⑦ 4, 9, 14, 19... — $5n - 1$ ✓

⑧ 7, 12, 17, 22... — $5n + 2$ ✓

⑨ 10, 8, 6, 4, 2... — $-2n + 12$ ✓

⑩ 25, 20, 15, 10 — $-5n + 30$ ✓

YMARFER : Darganfyddwch yr ateb cywir i'r canlyn

① 2, 4, 6, 8... — $2n$ ✓

② 8, 11, 14, 17... — $3n + 5$ ✓

③ 3, 6, 9, 12... — $3n$ ✓

④ -1, 3, 7, 11... — $4n - 5$ ✓

⑤ 3, 7, 11, 15... — $4n - 1$ ✓

⑥ 5, 7, 9, 11... — $2n + 3$ ✓

⑦ 10, 6, 2, -2... — $-2n + 12$ ✓

Gwaith Dosbarth 3/3/5

Cwrs Cyntaf : Ysgrifennwch y 2 rhif nesaf o'r rheol mewn geiriau

① 1) 11, 13, 15, 17, 19, 21 +2 2n +9

2) 9, 13, 17, 21, 25, 29, +4 4n +5

3) 2, 10, 18, 26, 34, 42, +8 8n -6

4) 2, -6, 18, -54, 162, -486, x -3

5) 1, 3, 6, 10, 15, 21, 28, Y rhifau triongl

② OS yw'r rheol yn 4n + 3 dargan fyddwch

1) yr 20fed term = 83
4 x 20 + 3 =

2) yr 100fed term = 403
4 x 100 + 3 =

Dargan fyddWch yn nfed term

① 3, 6, 9, 12, .... 3n

② 1, 4, 7, 11 .... 3n -2

③ 6, 11, 16, 21 .... 5n +1

④ 5, 13, 21, 29 ... 8n -3

⑤ 7, 11, 15, 19 ... 4n +3

⑥ 28, 32, 36, 40 ... $4n + 24$ ✓

⑦ 10, 8, 6, 4 .... $-2n + 12$ ✓

⑧ 12, 9, 6, 3, 0 .... $-3n + 15$ ✓

⑨ 20, 15, 10, 5 .... $-5n + 25$ ✓

⑩ 1, 4, 9, 16, 25 .... $n^2$ ✓

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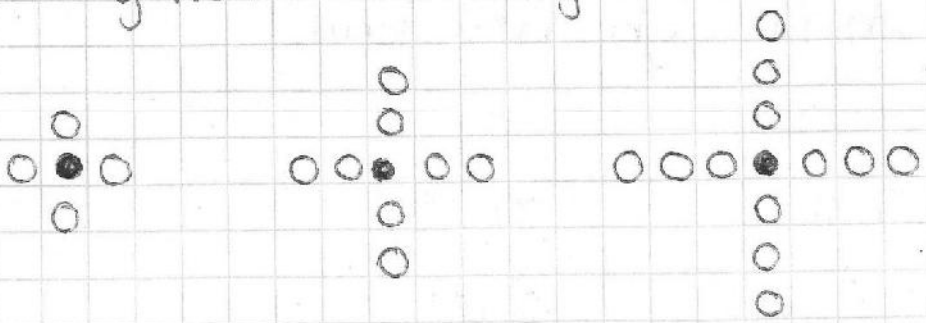
Gwaith Dosbarth 4/3/15

Cwrs Cyntaf:

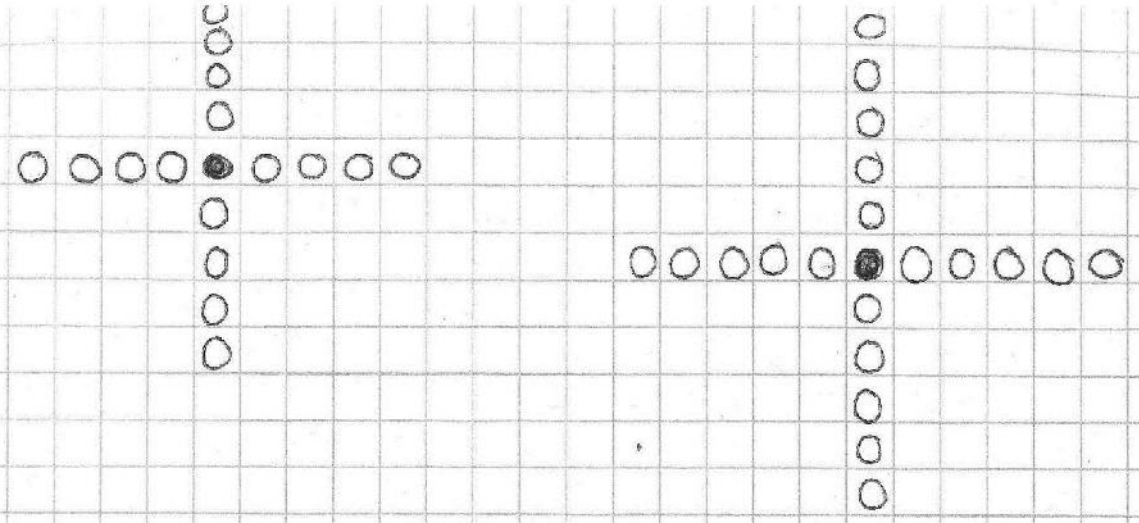
1) Dilyniannau ×
2) Paralelogram ✓
3) Polygonau ✓
4) octagon ✓
5) triongl isosgeles ✓

★ 4/5 ★

Nod y wers: Deall dilyniannau



a) Lluniwch diagram 4 a 5



b)

| Rhif y Patrwm | 1 | 2 | 3 | 4 | 5 | 10 |
|---|---|---|---|---|---|---|
| Nifer o Gylchoedd gwyn | 4 | 8 | 12 | 16 | 20 | 40 |

c) Darganfyddwch yn $n^{fed}$ term

$= 4n$ ✓

d) Sawl cylch gwyn yn y:

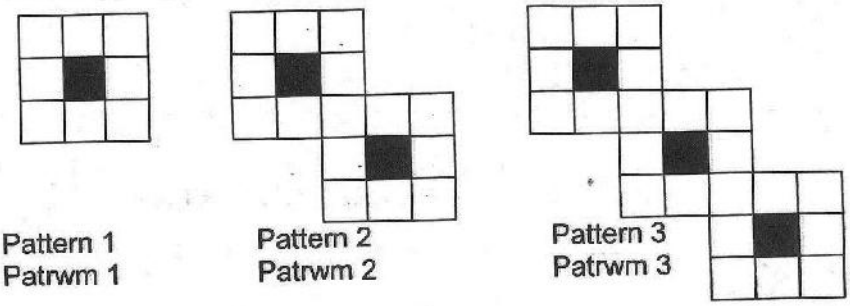
(i) $20^{th}$ patrwm $= 4 \times 20 = 80$ ✓

(ii) $100^{th}$ patrwm $= 100 \times 20 = 400$ ✓

**Lefel 6**

"Darganfod ac yn disgrifio mewn geiriau y rheol ar gyfer cynhyrchu'r term nesaf neu'r $n^{fed}$ term pan fydd y rheol honno'n un llinol"

10. These patterns are made from square tiles.
Gwneir y patrymau hyn allan o deils sgwâr.



Pattern 1
Patrwm 1

Pattern 2
Patrwm 2

Pattern 3
Patrwm 3

a) Complete the table / Cwblhewch y tabl

| Pattern number<br>Rhif y patrwm | 1 | 2 | 3 | 4 | 5 | 10 |
|---|---|---|---|---|---|---|
| Number of white tiles<br>Nifer y teils gwyn | 8 | 15 | 22 | 29 | 36 | 71 ✓ |

(3)

b) Find the rule for the nth pattern
Darganfyddwch y rheol ar gyfer yr nfed patrwm

$7n + 1$ ✓

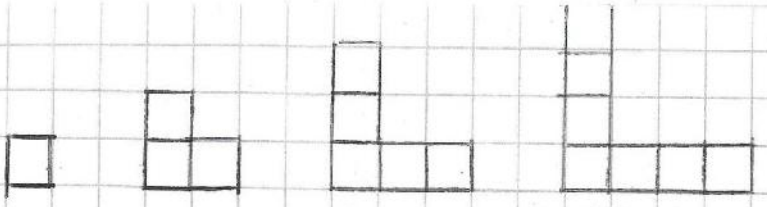
(2)

c) How many white tiles would be in the:
Sawl teilsen gwyn bydd yn yr:

i) 10th pattern / 10fed patrwm = 71 ✓

ii) 100th pattern / 100fed patrwm = 701 ✓

(2)



a)

| Rhif y Patrwm | 1 | 2 | 3 | 4 | 5 | 10 |
|---|---|---|---|---|---|---|
| Nifer o teils gwyn | 1 | 3 | 5 | 7 | 9 | ~~17~~ 19 |

b) Dargan fyddwch y $n^{fed}$ term

~~2n - 1~~

c) Sawl teil gwyn yn y:

(i) $50^{fed}$ = 99 $(2 \times 50 - 1)$

(ii) $20^{fed}$ = 39 $(2 \times 20 - 1)$

---

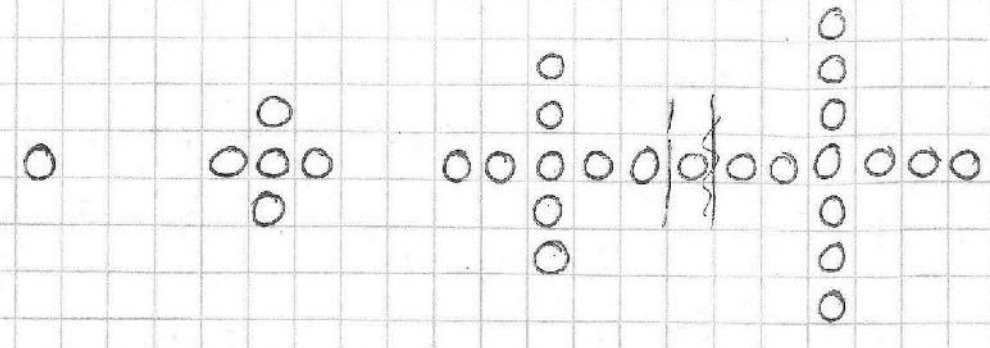
Gwaith Dosbarth 6/3/15

Cwrs Cyntaf

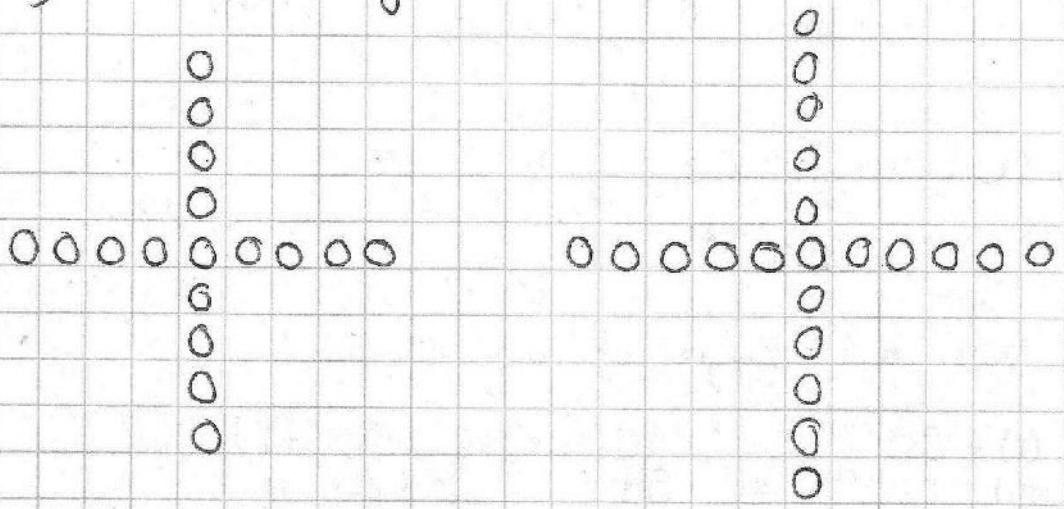
1) Rhowch y 2 rhif nesaf, y rheol mewn geiriau a'r $n^{fed}$ term.

a) 6, 8, 10, 12, 14, 16, adio 2 $2n + 4$ ✓
b) 5, 8, 11, 14, 17, 20, adio 3 $3n + 2$ ✓
c) 4, 8, 12, 16, 20, 24, adio 4 $4n$ ✓
d) 4, 9, 14, 19, 24, 29, adio 5 $5n - 1$ ✓
e) 1, 8, 15, 22, 29, 36, adio 7 $7n - 6$ ✓
f) 20, 10, 0, -10, -20, -30 tynnu 10 $-10 + 30$ ✓
g) 8, 5, 2, -1, -4, -7 tynnu 3 $-3n + 11$ ✓
h) 12, 6, 0, -6, -12, -18 tynnu 6 $-6n + 18$ ✓
i) 15, 13, 11, 9, 7, 5, tynnu 2 $-2n + 17$ ✓ ★

1



a) Lluniwch diagram 5 a 6



b)

| Rhif y diagram | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 100 |
|---|---|---|---|---|---|---|---|---|---|
| Nifer y Cylchoedd gwyn | 1 | 5 | 9 | 13 | 17 | 21 | 25 | 29 | 397 |
| | | | | | | | | | (4 × 100 − 3) |

c) Dargonfyddwch yr $n^{fed}$ = $4n - 3$ ✓

d) Sawl Cylch gwyn yn (i) patrwm 20? = 77 ✓
(ii) patrwm 40? = 157 ✓

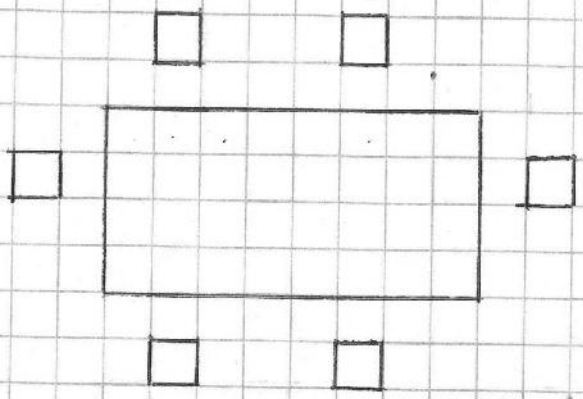
(i) $4 \times 20 - 3 = 77$ ✓

(ii) $4 \times 40 - 3 = 157$ ✓

Ymchwiliad

11/3/15

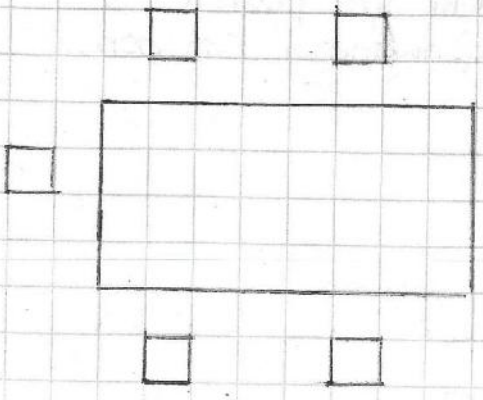
Mewn bistro defnyddir byrddau o'r math canlynol:



Ymchwiliwch

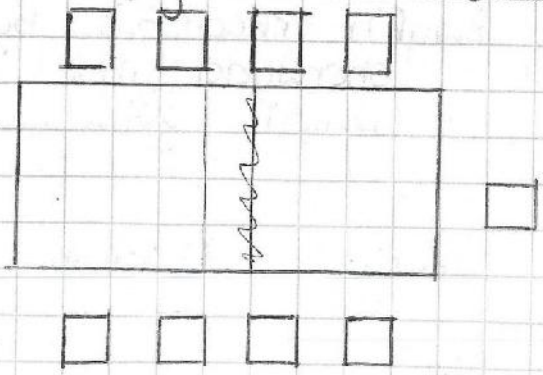
Yn gyntaf rwyf yn mynd i greu y pedwar diagram cyntaf.

Diagram 1 - 1 bwrdd



6 cadair

Diagram 2 - 2 bwrdd



10 Cadair

Diagram 3

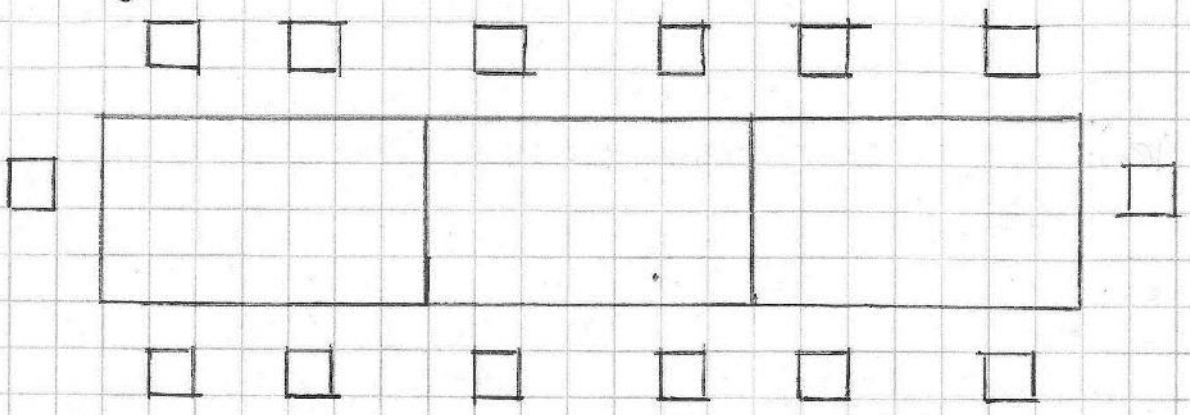
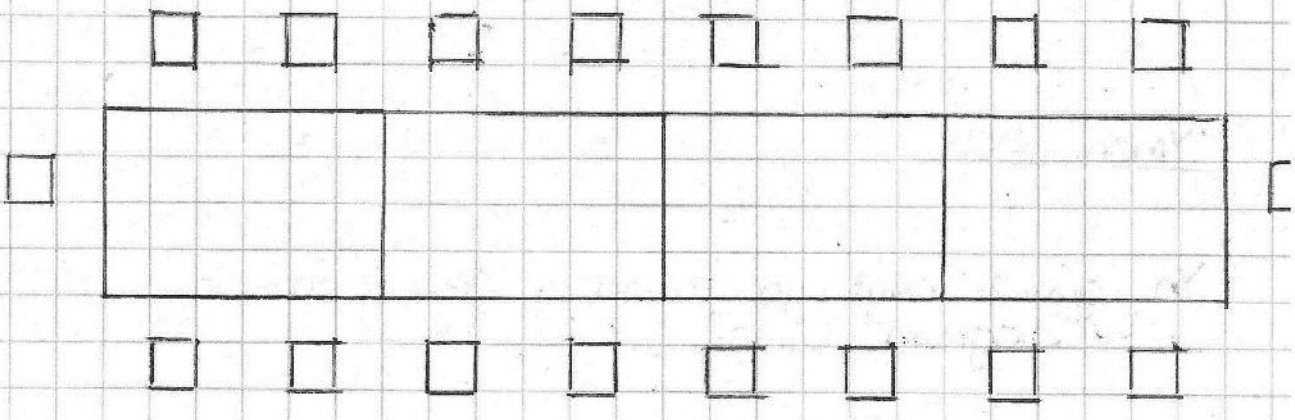
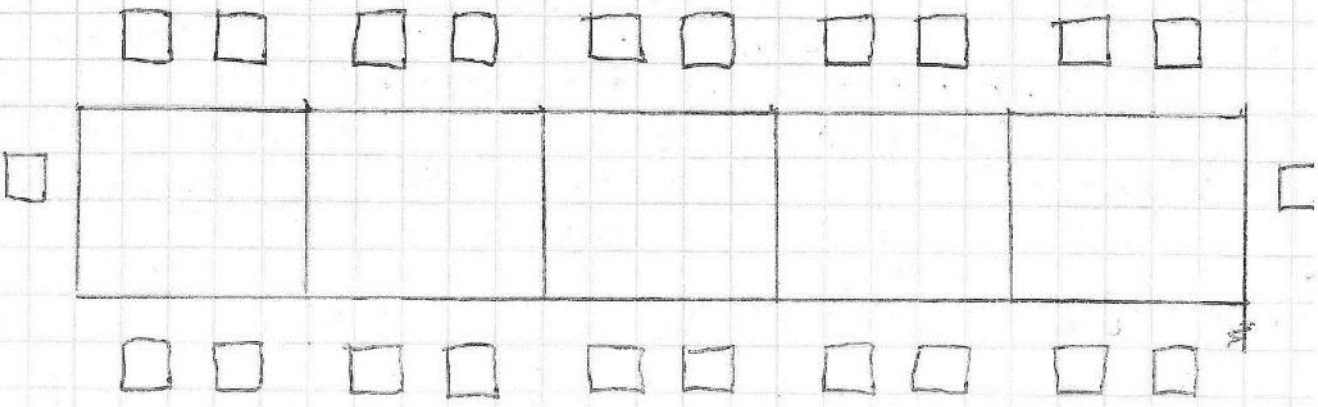


Diagram 4



Rwyf'n rhagaybio bydd 22 cadair yn patrwm 3 oherwydd mae 4 cadair ychwanegol am pob bwrdd ychwanegol

Gwirio Diagram 5



Rwyf nawr yn gallu gosod y canlyniadau mewn tabl.

| Nifer o byrddau | 1 | 2 | 3 | 4 | 5 | 10 | ?=12 |
|---|---|---|---|---|---|---|---|
| Nifer y cadeiriau | 6 | 10 | 14 | 18 | 22 | 42 | 50 |

Mae'r patrwm ar gyfer y cadeiriau yn mynd ian mewn 4, felly mae'r n^ed terfyn yn 4n + 2. Felly os oes 10 bwrdd bydd yna

$4 \times 10 + 2 = 42$ o gadeiriau.

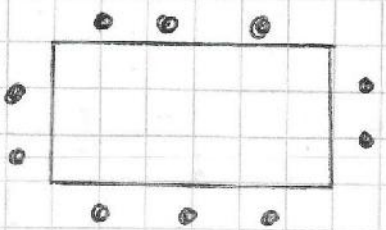
Os oes 50 person mewn parti, bydd angen

$(50 - 2) = 48 \div 4 = 12$ bwrdd

---

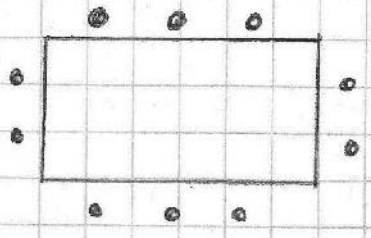
## Tasg 2

Ymchwiliwch y trefniadau eistedd gyda'r bwrdd Canlynol:



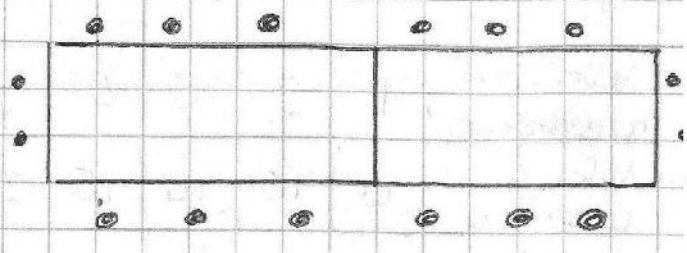
Yn gyntaf rwyf yn mynd i greu y 4 diagram nesaf.

Diagram 1



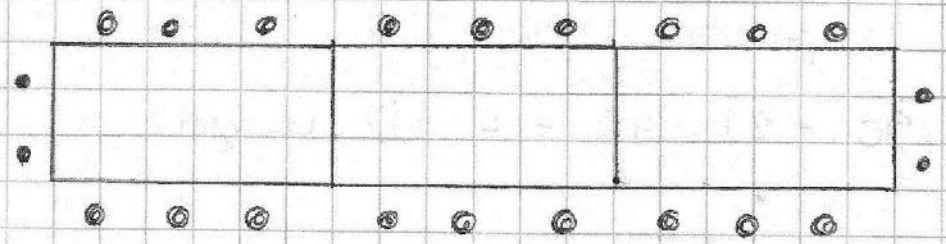
1 bwrdd
10 cadair

Diagram 2



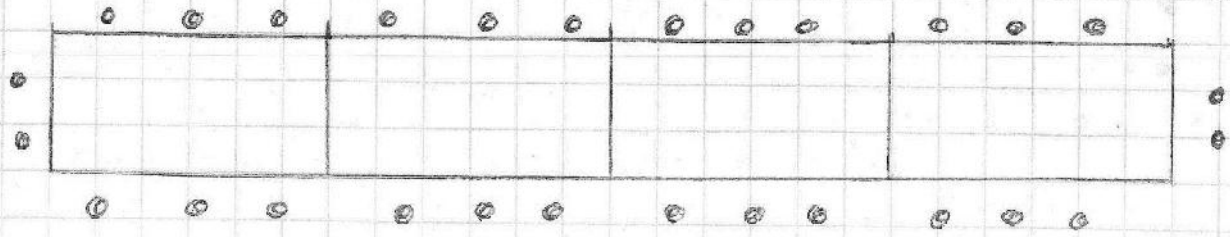
2 bwrdd
16 cadair

Diagram 3



3 bwrdd
22 cadair

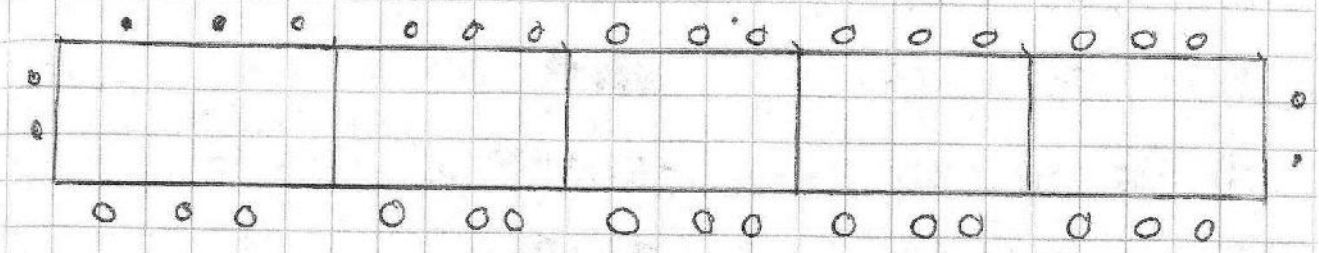
Diagram 4



4 cadair
28 cadair

Rwy'n rhagdybio bydd 34 cadair yn diagram 5 oherwydd mae 6 cadair ychwanegol am pob bwrdd ychwanegol.

Gwirio Diagram 5



Rwyf nawr yn gallu gosod y canlyniadau mewn tabl

| Nifer o byrddau | 1 | 2 | 3 | 4 | 5 | 10 | ?= |
|---|---|---|---|---|---|---|---|
| Nifer o Cadeiriau | 10 | 16 | 22 | 28 | 34 | 64 | 100 |

Mae'r patrwm ar gyfer y cadeiriau yn mynd lan mewn 6, felly mae'r nod term yn $6n + 4$ felly os oes 10 bwrdd bydd yna

$6 \times 10 + 4 = 64$ o gadeiriau os oes 100 person mewn parti bydd angen

$100 - 4 = 96 \div 6 = 16$ bwrdd

Gwaith Dosbarth 13/3/15

Cwrs Cyntaf

Darganfyddwch y $n^{fed}$ term

① 4, 6, 8, 10, ... $2n+2$ ✓

② 1, 6, 11, 16, .... $5n-4$ ✓

③ 96, 92, 88, 84 ... $-4n+100$ ✓

④ -3, -1, 1, 3 ... $2n-5$ ✓

⑤ 2.5, 3.5, 4.5 ... $1n+1.5$ ✓

Nod y wers : Ymchwilio i blotio graffiau

Tasg 1 Plotiwch y graffiau canlynol

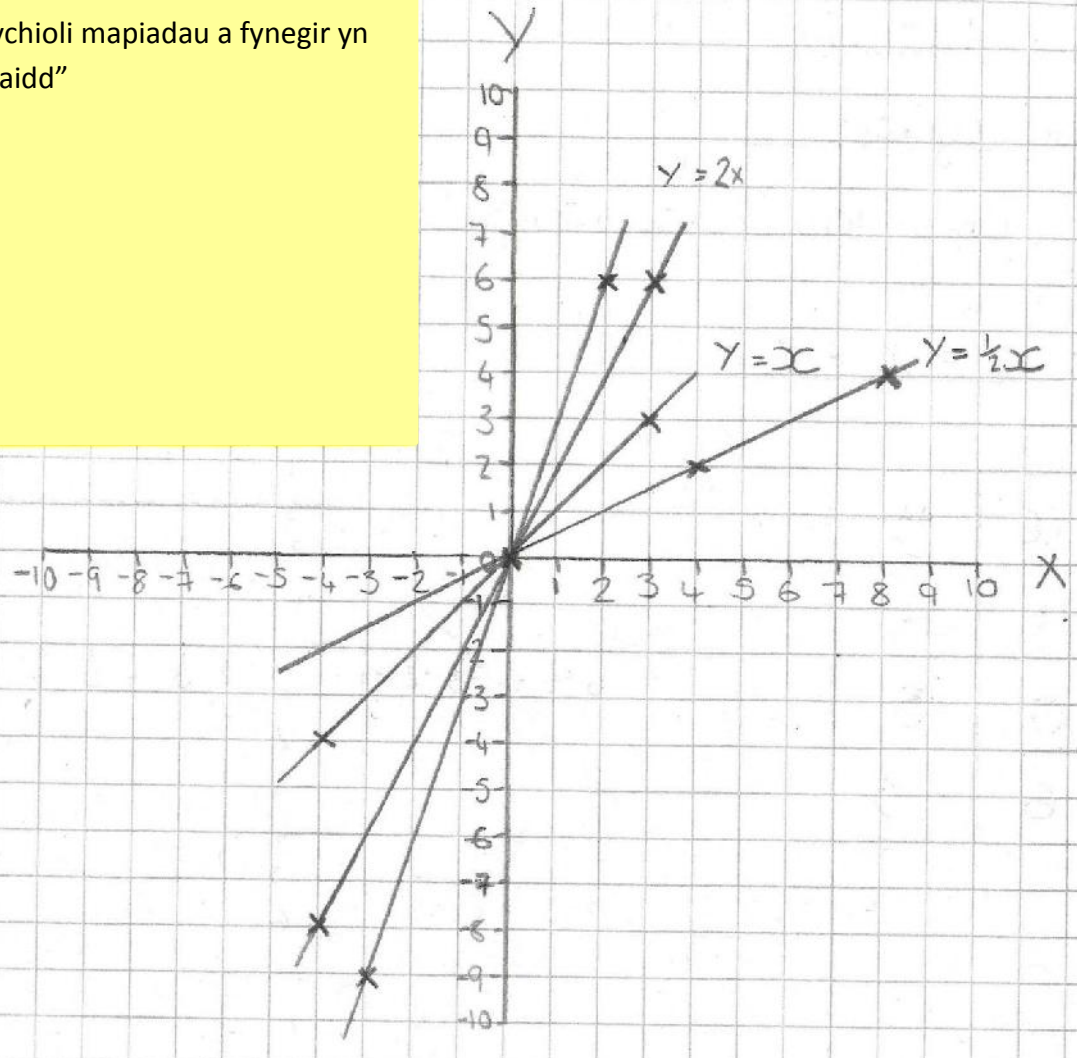
$y = 3x$ $y = x$ $y = 2x$ $y = x + 2$

Beth ydych yn sylwi am y graffiau uchod?

Mae nhw i gyd yn mynd trwy'r tardd (0,0)
Maer llinellau sydd yn mynd yn fwy serth wrth i'r rhif o flaen yr x cynyddu.

**Lefel 6**

"Cynrychioli mapiadau a fynegir yn algebraidd"




y = x

| x | x1 | y |
|---|---|---|
| 0 | x1 | 0 |
| 3 | | 3 |
| -4 | | -4 |

y = 2x

| x | x2 | y |
|---|---|---|
| 0 | | 0 |
| 3 | | 6 |
| -4 | | -8 |

y = 3x

| x | x3 | y |
|---|---|---|
| 0 | | 0 |
| 2 | | 6 |
| -3 | | -9 |

y = ½ x

| | x ½ | |
|---|---|---|
| | | |
| | | |
| | | |

Gwaith Dosbarth

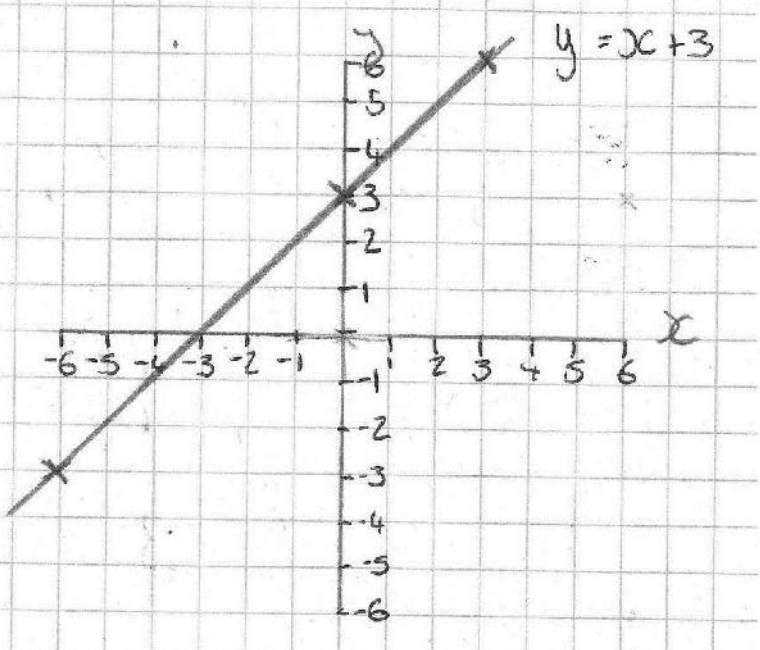
17/3/15

Cwrs Cyntaf

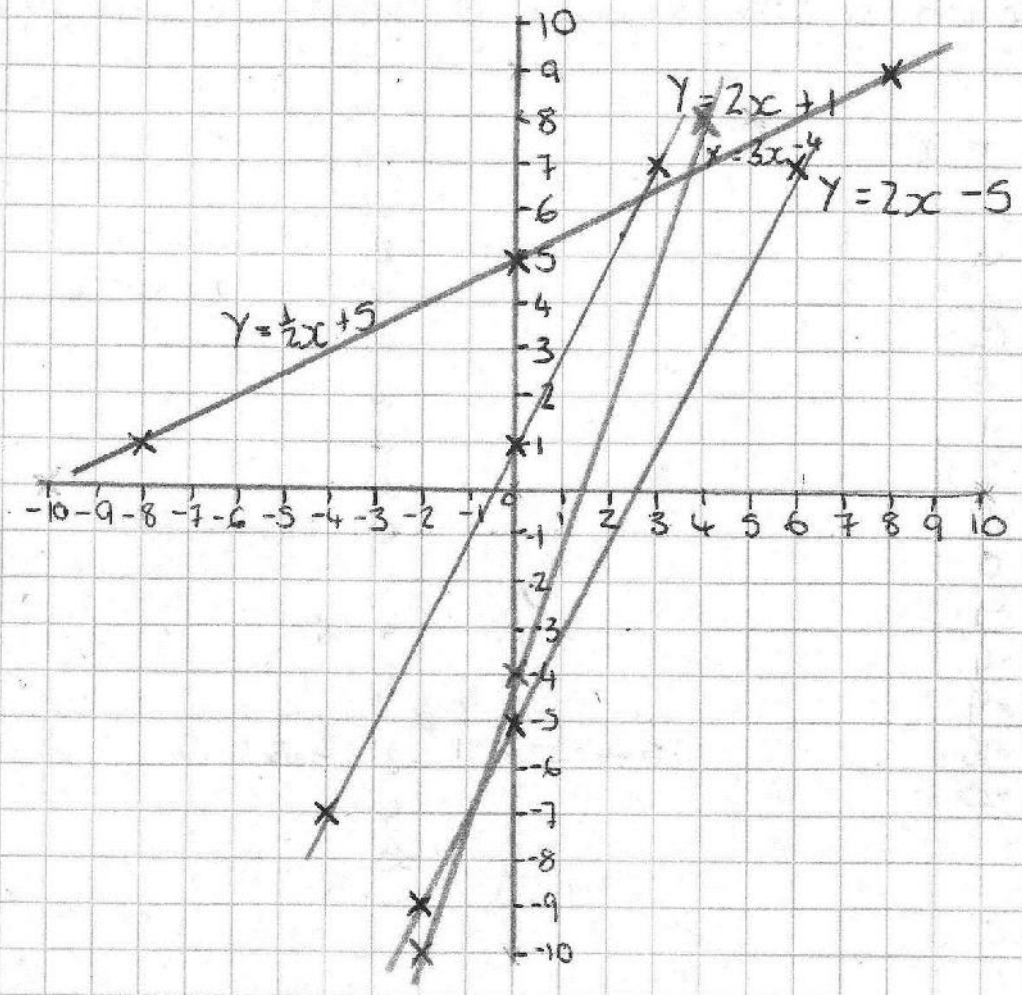
Drwy lenwi'r tabl canlynol lluniwch graff $y = x + 3$

$y = x + 3$

| x | y |
|---|---|
| 3 | 6 |
| 0 | 3 |
| -6 | -3 |



# Graffiau llinell syth




Y = 2x + 1

| x | y |
|---|---|
| 0 | 1 |
| 3 | 7 |
| -4 | -7 |

Y = 2x - 5

| x | y |
|---|---|
| 0 | -5 |
| 6 | 7 |
| -2 | -9 |

Y = 3x - 4

| x | y |
|---|---|
| 0 | -4 |
| 4 | 8 |
| -2 | -10 |

Y = ½x + 5

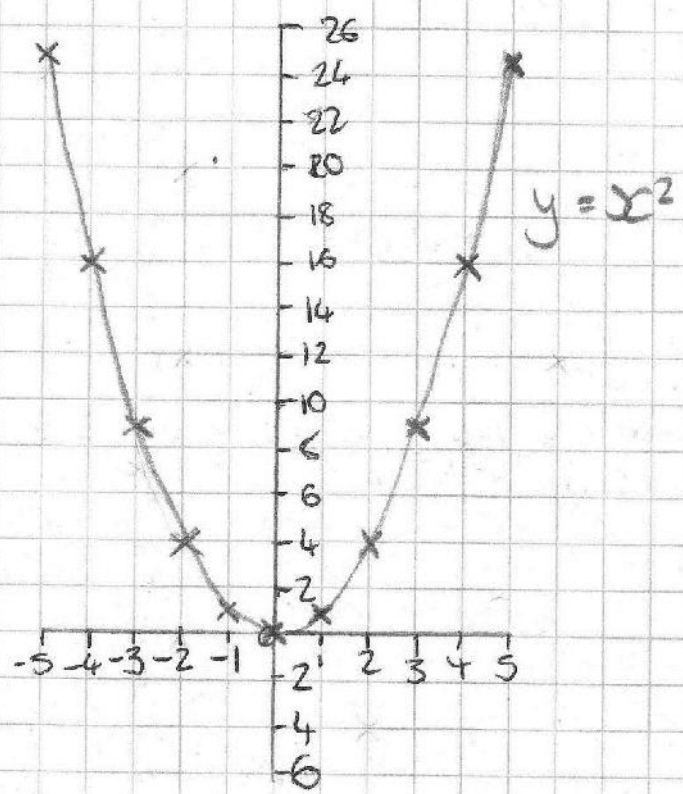
| x | y |
|---|---|
| 0 | 5 |
| 8 | 9 |
| -8 | 1 |

## Tasg

Cwblhewch y tabl Conlynol a lluniwch y graff $y = x^2$

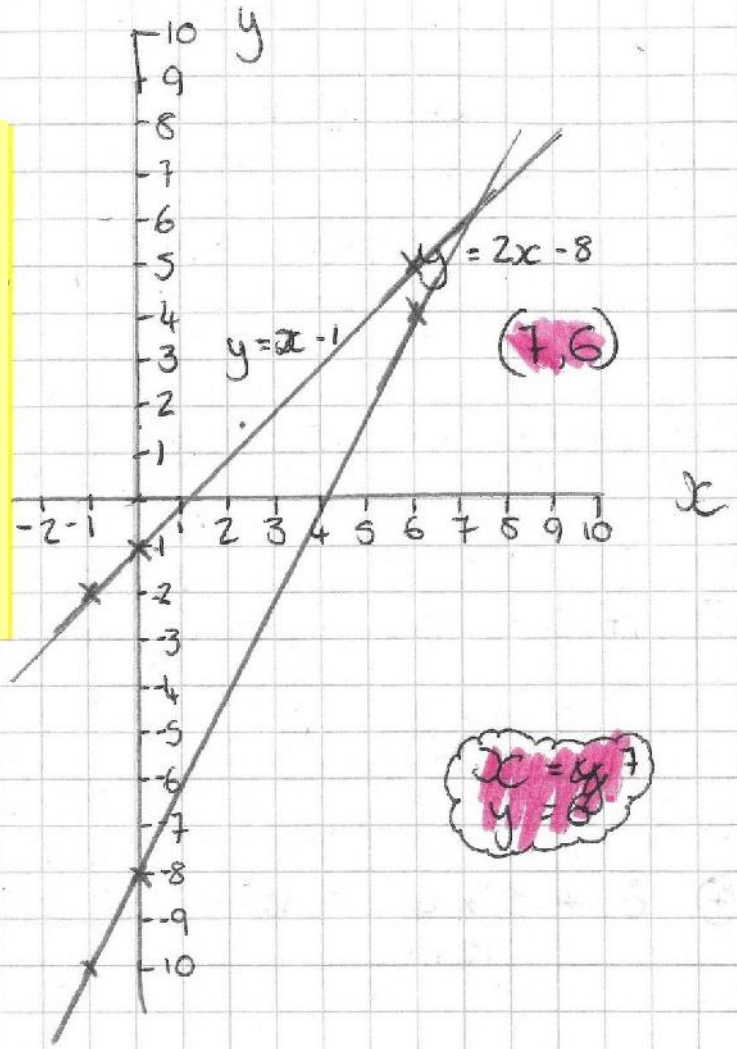
$y = x^2$

| $x$ | $y$ |
|---|---|
| 5 | 25 |
| 4 | 16 |
| 3 | 9 |
| 2 | 4 |
| 1 | 1 |
| 0 | 0 |
| -1 | +1 |
| -2 | +4 |
| -3 | +9 |
| -4 | +16 |
| -5 | +25 |



**Lefel 7**

"Dulliau **graffigol** i ddatrys hafaliadau llinol cydamserol mewn dau newidyn"

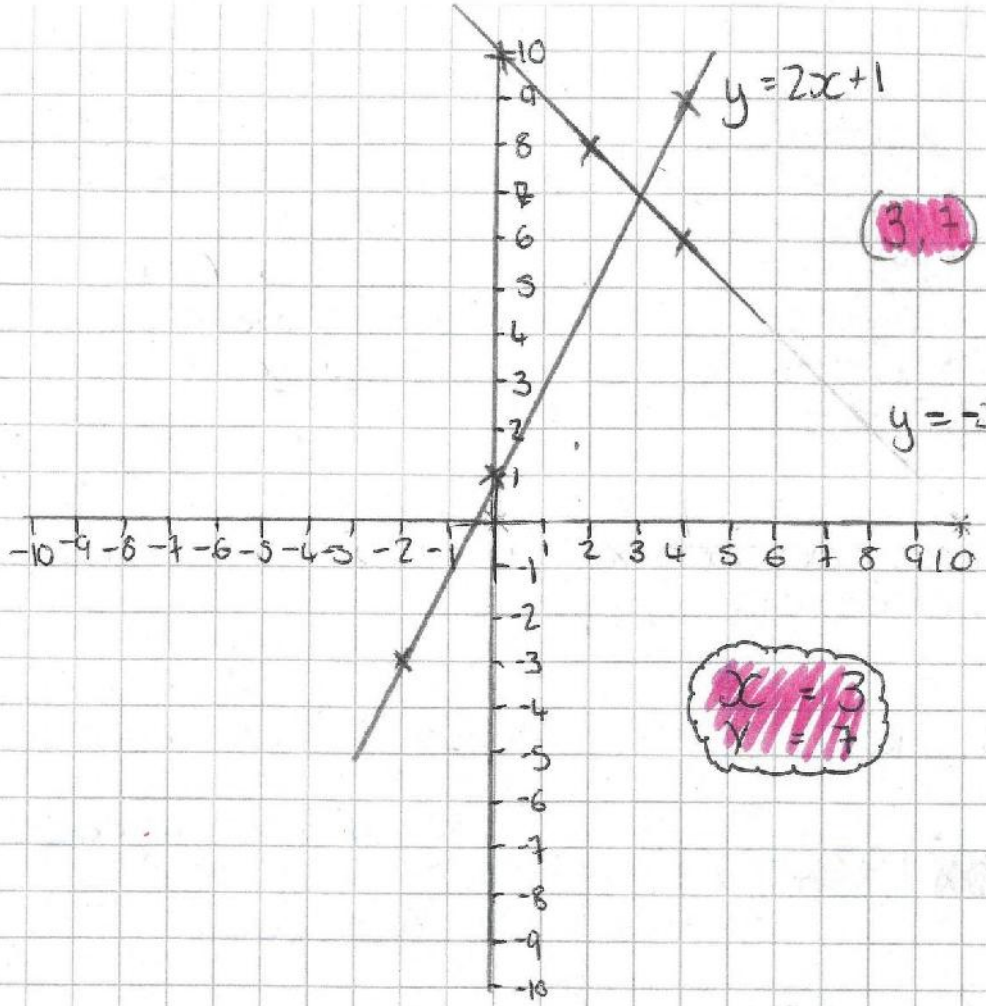



$y = 2x - 8$

| x | y |
|---|---|
| -1 | -10 |
| 0 | -8 |
| 6 | 4 |

$y = x - 1$

| x | y |
|---|---|
| -1 | -2 |
| 0 | -1 |
| 6 | 5 |




$y = 2x + 1$

| x | y |
|---|---|
| 0 | 1 |
| -2 | -3 |
| 4 | 9 |

$y = -x + 10$

| x | y |
|---|---|
| 0 | 10 |
| 2 | 8 |
| 4 | 6 |

## CYFEIRIANNAU / BEARINGS

**Rhaglen Astudio Bl.9**
**(yn awgrymu Lefel 6)**

"Nodi lleoliad cymharol gwrthrych yng ngoleuni'r cyfeiriant rhwng un a'r llall"

Defnyddir cyfeiriannau i ddisgrifio lleoliad gwrthrych (object).

Bearings are used to describe the location of an object.

Mae angen cofio tair rheol bwysig ynglŷn â chyfeiriannau:

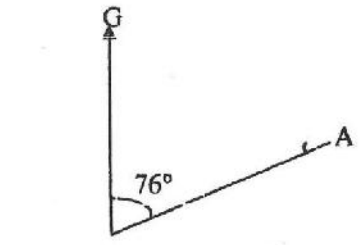
You need to remember three things about bearings:

- mesur o'r Gogledd / measure from North
- mesur yn glocwedd / measure clockwise
- defnyddio 3 ffigur e.e. 076°, 123°, 289° / use 3 figur[illegible]

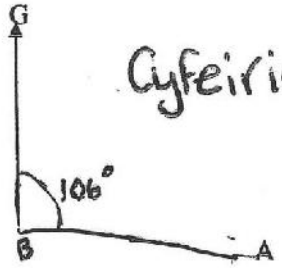
**Enghreifftiau / Examples**

Beth yw cyfeiriant A o B ymhob un o'r diagramau canlynol?

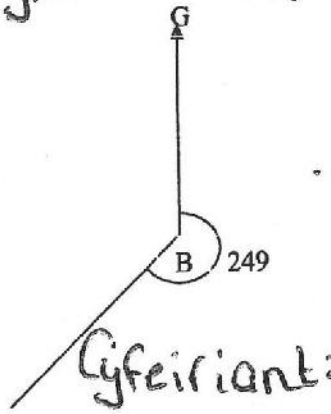
What is the bearing of A from B in each of the following diagrams?



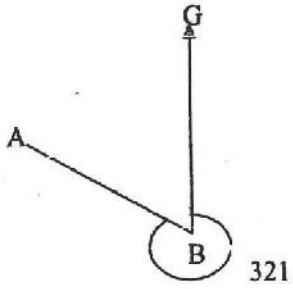

Cyfeiriant = 076°



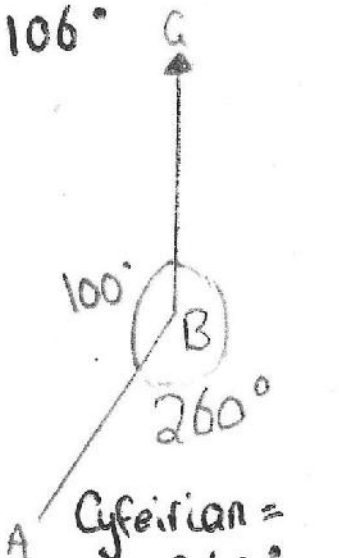

Cyfeiriant = 106°




Cyfeiriant = 249°




Cyfeiriant = 321°

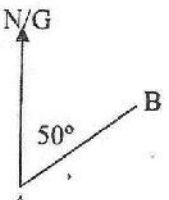



Cyfeirian = 260°

# BEARINGS / CYFEIRIANNAU

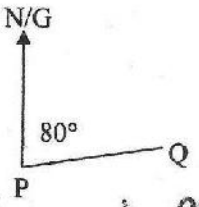
Give the bearings of the following:
Rhowch gyfeiriannau y canlynol:

1.



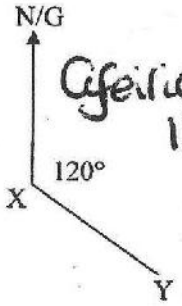

Cyfeiriant : 050°

2.



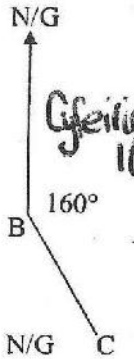

Cyfeiriant : 080°

3.



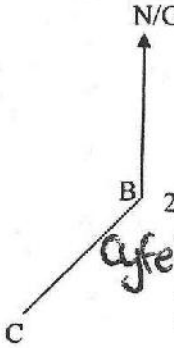

Cyfeiriant = 120°

4.



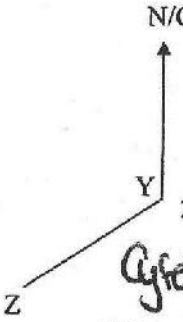

Cyfeiriant = 160°

5.



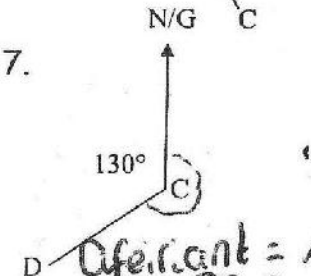

Cyfeiriant = 220°

6.



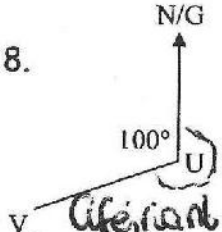

Cyfeiriant = 250°

7.



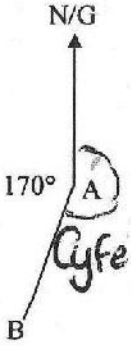

Cyfeiriant = 230°

8.



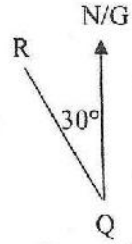

Cyfeiriant : 260°

9.



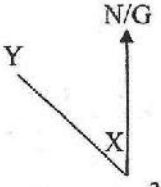

Cyfeiriant = 190°

10.




Cyfeiriant = 330°

11.




Cyfeiriant = 320°

12.




Cyfeiriant = 350°

## Bearings / Cyfeiriannau

For each of the following, draw a scale diagram to show the position of the points. Use 1cm = 1 km.
Ar gyfer pob un o'r canlynol, lluniwch ddiagram i raddfa i ddangos lleoliad y pwyntiau. Defnyddiwch 1cm = 1 km.

1. B is on a bearing of 035° and 3 km from A
   Mae B ar gyfeiriant o 035° a 3 km o A

2. Q is on a bearing of 070° and 4 km from P
   Mae Q ar gyfeiriant o 070° a 4 km o P

3. Y is on a bearing of 045° and 4.5 km from X
   Mae Y ar gyfeiriant o 045° a 4.5 km o X

4. C is on a bearing of 150° and 4.8 km from B
   Mae C ar gyfeiriant o 150° a 4.8 km o B

5. R is on a bearing of 135° a 5.2 km o Q
   Mae R ar gyfeiriant o 135° a 5.2 km o Q

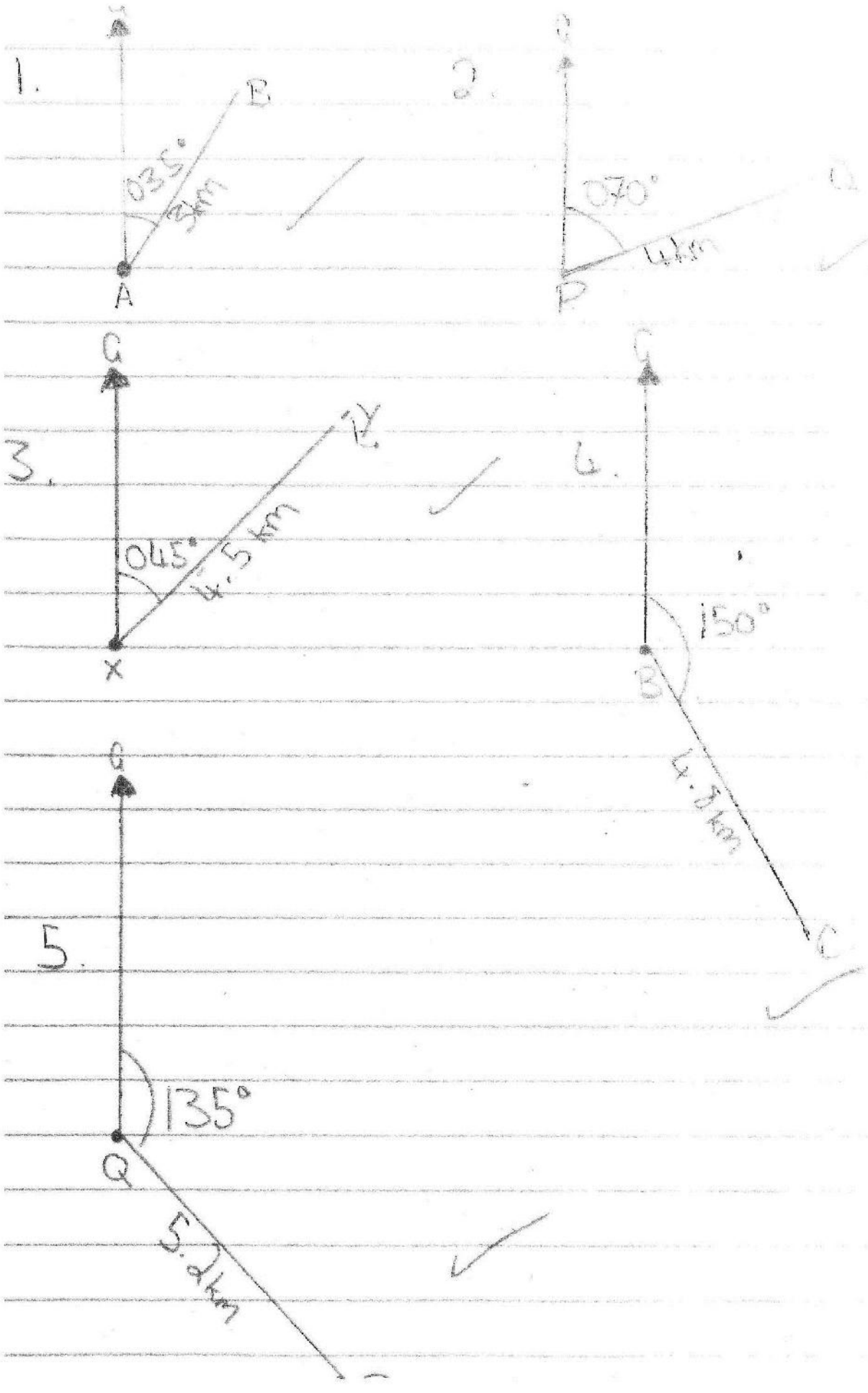
6. Z is on a bearing of 200° and 5.6 km from Y
   Mae Z ar gyfeiriant o 200° a 5.6 km o Y

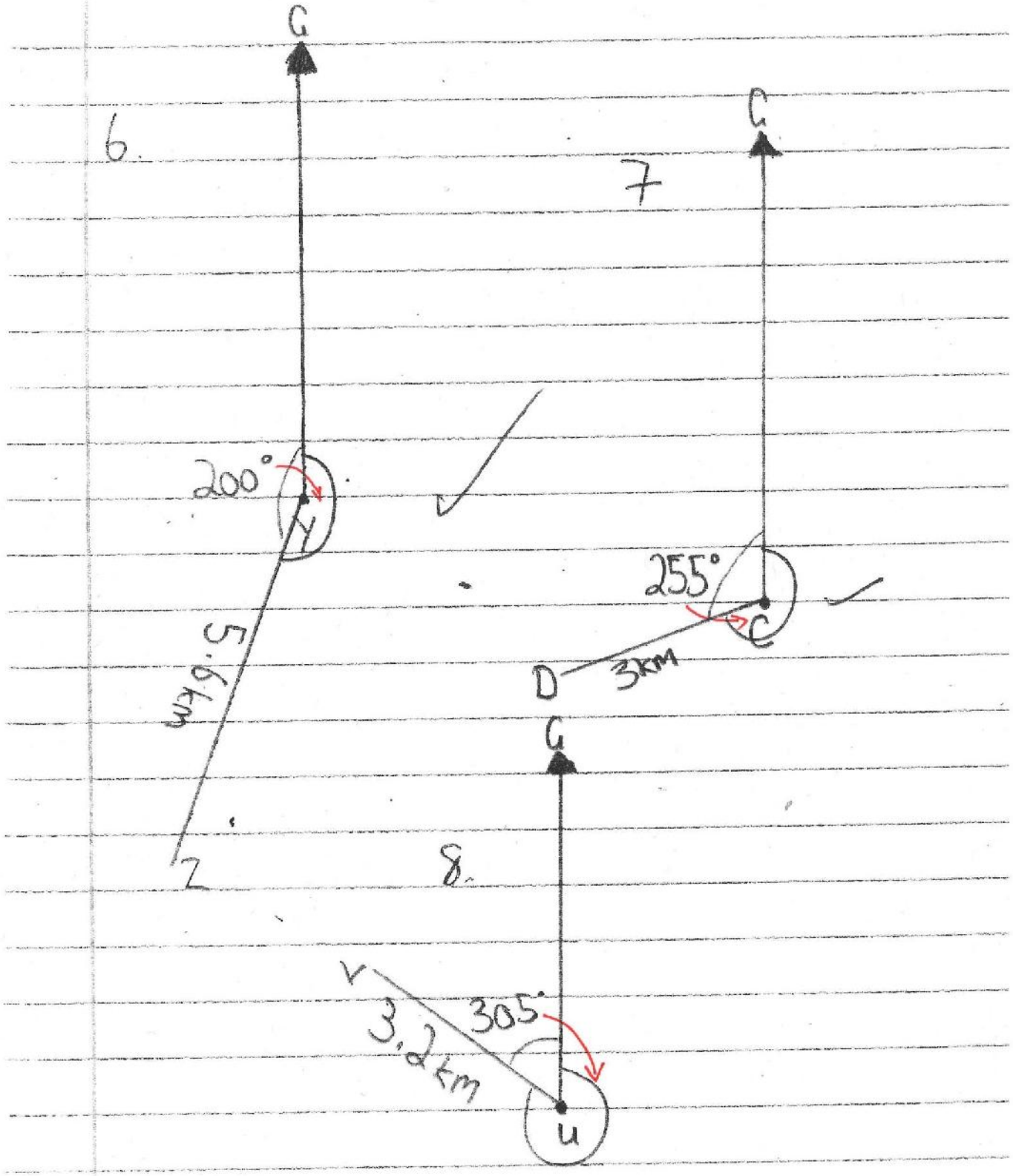
7. D is on a bearing of 225° and 3 km from C
   Mae D ar gyfeiriant o 225° a 3 km o C

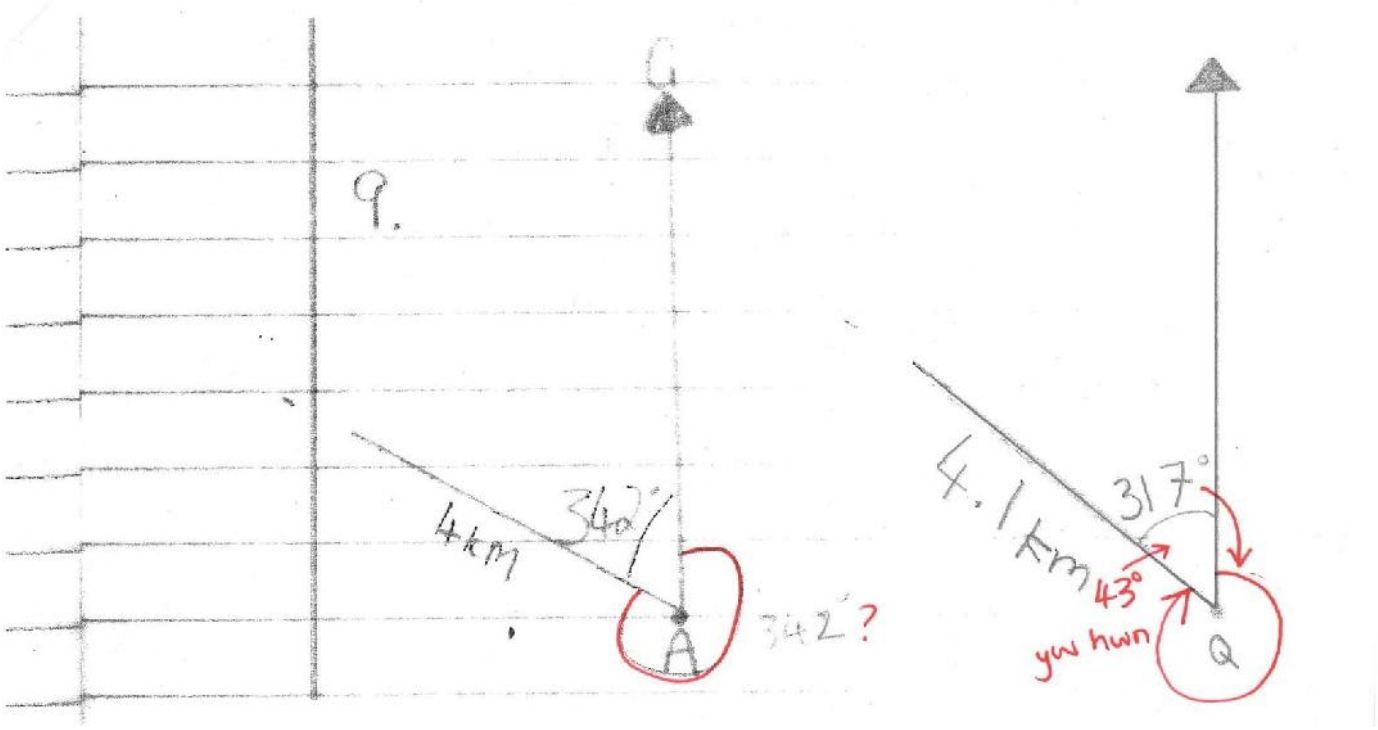
8. V is on a bearing of 305° and 3.2 km from U
   Mae V ar gyfeiriant o 305° a 3.2 km o U

9. B is on a bearing of 342° and 4 km from A
   Mae B ar gyfeiriant o 342° a 4 km o A

10. Q is on a bearing of 317° and 4.1 km from P
    Mae Q ar gyfeiriant o 317° a 4.1 km o P.


1.
B
035°
3km
A
2.
070°
4km
3.
045°
4.5km
4.
150°
4.2km
5.
135°
5.2km


6.
7
8.
200°
255°
305°
9.5 km
3km
3.2 km
N
N
N
X
C
D
Z
Y
u


9.
4km
342°
342°?
4.1km
317°
43°
yw hwn
Q

**Lefel 6: Proffil dysgwr**

Bernir bod y deunyddiau yn y blygell hon yn cynnwys proffil dysgwr sy'n nodweddu safonau cyrhaeddiad dysgwr, sydd, ar y cyfan, ar lefel 6. Dylai'r sylwebaeth alluogi'r darllenydd i weld pam y dyfarnwyd lefel 6 cyd-fynd orau i'r proffil.

Bwriad lefel y manylder a enghreifftir yma yn y sylwebaeth yw dangos sut y mae cyfiawnhau'n llawn lefel cyd-fynd orau mewn proffiliau dysgwyr. Ar gyfer dyfarnu lefel cyd-fynd orau ar ddiwedd cyfnod allweddol ac wrth gymedroli'n fewnol mewn ysgol, mae'n angenrheidiol i'r athro/athrawes gyfiawnhau bod ystod angenrheidiol y gwaith wedi'i gyflawni a'i fod o safon briodol i gyrraedd y lefel cyd-fynd orau. Yr ysgol sy'n gyfrifol o ran sut y caiff hyn ei ddangos.

Bydd proffil dysgwr, fel arfer, yn cynnwys gwaith disgybl ar draws ystod gofynion y pwnc ac yn cynnig digon o dystiolaeth i alluogi penderfyniad ynghylch pa lefel sy'n cyd-fynd orau â'r hyn a gynrychiolir yn y proffil. Dylai'r proffil dysgwr fod yr un mor glir â llyfr neu lyfrau'r dysgwr sy'n cynnig tystiolaeth o nodweddion lefelau a tharged/au cyrhaeddiad perthnasol. Gallai gwaith arall a fyddai'n cynnig darlun llawn o safonau'r dysgwr gynnwys thema/llyfr topig, recordiadau clyweledol, cofnod darllen. Bydd sylwebaeth ar y proffil dysgwr yn ei gwneud yn glir sut y penderfynwyd ar y lefel cyd-fynd orau a pham nad yw'r gwaith ar y lefel uwch neu is os ydyw yn ffiniol. Bydd y sylwebaeth yn cyfeirio at lle, yn y llyfr gwaith neu mewn darnau eraill o waith a gynhyrchwyd yn ystod y flwyddyn, y mae tystiolaeth o gyflawniad ar lefel benodol.

# Mathemateg : proffil dysgwr

## Lefel 6

| Sylwebaeth | Ffynhonnell | Cyfeiriad |
|---|---|---|
| O fewn y llinyn rhesymu, gwelwyd tystiolaeth a oedd yn nodweddu gwaith ar Lefel 5 a rhai agweddau o Lefel 6.<br><br>Mae tystiolaeth i dangos bod y dysgwr yn medru rhannu problemau yn dasgau llai yng nghyd-destun arwynebedd, biliau trydan a nwy ac onglau polygonau.<br><br>Ceir tystiolaeth o waith ymchwiliol sy'n ymwneud â dilyniannau rhif mewn diagramau lle defnyddir gwybodaeth a gyflwynir mewn amrywiaeth o ffurfiau Serch hynny, ni cheir cyfiawnhad mathemategol. | Llyfr ysgrifennu mathemateg (Catrin) | tudalennau 5, 20, 78-81, 168-174<br><br>tudalennau 198-202 |
| O fewn y llinyn rhif ac algebra, ceir tystiolaeth glir o waith ar Lefel 6 gyda pheth gwaith cefnogol ar Lefel 5 a gwaith ymestynnol ar Lefel 7 a Lefel 8. | " | |
| Mae'r dystiolaeth yn dangos bod y dysgwr yn medru talgrynnu rhifau i lefydd degol a ffigurau ystyrlon (lefel 7),<br>a defnyddio'r technegau wrth frasamcanu.<br><br>Gwelir tystiolaeth, wrth ddefnyddio'r ffurf safonol, o waith ar Lefel 8, a gwaith cefnogol ar bwerau.<br><br>Mae'r dysgwr yn medru defnyddio dulliau profi a gwella, gan drefnu degolion. | " | tudalennau 131-136, 136-138<br><br>tudalen 142<br>tudalennau 139-144<br>tudalennau 158-160 |
| Gwelir tystiolaeth dda o allu'r dysgwr i gyfrifo rhannau ffracsiynol o feintiau (Lefel 5),<br>a rhannau canrannol o feintiau (lefel 5).<br><br>Mae'r dysgwr yn dangos y gallu i gyfrifo newid cyfraneddol (Lefel 7) gydag adlog a dibrisio a chyda gwaith cefnogol ar elw a cholled canrannol.<br><br>Mae tystiolaeth i ddangos bod y dysgwr yn medru cyfrifo un rhif fel ffracsiwn a chanran o rif arall. | " | tudalennau 27-32, 145-146<br>tudalennau 34-35, 146-148<br>tudalennau 149-150<br><br>tudalennau 151-152 |
| Ceir tystiolaeth bod y dysgwr yn medru nodi ffracsiynau cywerth trwy symleiddio ffracsiynau.<br><br>Gwelwyd tystiolaeth dda o ddefnyddio cywerthedd ffracsiynau er mwyn adio ffracsiynau gydag enwaduron gwahanol.<br>Mae'r dystiolaeth yn dangos bod y dysgwr yn medru cyfrifo gan ddefnyddio cymarebau, gan nodi cymarebau cywerth hefyd. | " | tudalennau 33, 35-36<br><br>tudalennau 37-41<br><br>tudalennau 153-7 |
| Mae'r dysgwr yn medru disgrifio'r rheol ar gyfer parhau patrwm rhif | " | tudalen 190 |

| | | |
|---|---|---|
| syml, a nodi'r termau nesaf mewn dilyniant.<br><br>Mae tystiolaeth dda iawn sy'n dangos gallu'r dysgwr i nodi rheol nfed term dilyniannau llinol, gan gynnwys i ddisgrifio diagramau. | | tudalennau 191-7 |
| Mae'r dystiolaeth yn dangos yn glir bod y dysgwr yn medru datrys hafaliadau llinol syml,<br>gan gynnwys pan fo newidynnau ar ddwy ochr yr hafaliad.<br><br>Gwelir tystiolaeth o ehangu, ffactorio a symleiddio mynegiadau, o Raglen Astudio Blwyddyn 9, sy'n awgrymu Lefel 6.<br>Gwelir tystiolaeth o allu'r dysgwr i ddefnyddio fformiwlâu syml (Lefel 5), yng nghyd-destun amnewid gwerthoedd. | " | tudalennau 42-43, 86-89<br>tudalennau 89-90<br><br>tudalennau 83-85<br><br>tudalennau 91-94 |
| Mae'r dysgwr yn medru cynrychioli mapiadau a fynegir yn algebraidd, trwy blotio graffiau llinell syth yn dda.<br><br>Gwelir hefyd dystiolaeth o allu'r dysgwr i ddefnyddio dulliau graffigol i ddatrys hafaliadau llinol cydamserol, sy'n nodweddiadol o waith Lefel 7, er bod yr hafaliadau bob tro yn nhermau y. | " | tudalennau 204-206<br><br>tudalennau 208-209 |
| O fewn y llinyn geometreg, mae tystiolaeth glir o waith ar Lefel 6, ond mae diffyg tystiolaeth o ddefnyddio cynrychioliadau 2D cyffredin o wrthrychau 3D. | " | |
| Ceir peth tystiolaeth bod y dysgwr yn medru defnyddio priodweddau pedrochrau i ddisgrifio pedrochrau. | " | tudalennau 162-164 |
| Mae tystiolaeth dda yn dangos bod y dysgwr yn medru datrys problemau trwy ddefnyddio priodweddau ongl, gan gynnwys llinellau sy'n croestorri a llinellau paralel.<br><br>Ceir tystiolaeth hefyd o ddefnyddio priodweddau onglau mewn polygonau a chymesuredd mewn polygonau.<br><br>Mae tystiolaeth y gall y dysgwr ddefnyddio priodweddau onglau hefyd yng nghyd-destun cyfeiriant. | " | tudalennau 59-69, 72-74, 165-167<br><br>tudalennau 70-71, 170-171<br><br>tudalennau 210-215 |
| O fewn y llinyn mesur, gwelir tystiolaeth sicr o waith lefel 6, a gwaith ymestynnol ar lefel 7. | " | |
| Mae tystiolaeth glir bod y dysgwr yn medru cyfrifo cylchedd (perimedr) ac arwynebedd cylch gan ddefnyddio fformiwlâu ac yn defnyddio'r rhain mewn cyd-destun ymchwiliol. | " | tudalennau 15-18<br><br>tudalennau 19-20 |
| Gwelir tystiolaeth raenus o gyfrifo arwynebeddau gan ddefnyddio fformiwlâu. Mae'n cynnwys siapiau cyfansawdd o fwy nag un petryal ac arwynebedd paralelogramau a thrapesiymau.<br><br>Mae'r dysgwr yn sicr yn gallu cyfrifo cyfaint ciwboidau gan ddefnyddio fformiwla, gan gynnwys y gallu i ddarganfod hyd coll o | " | tudalennau 1-14<br><br>tudalennau 22-23 |

| | | |
|---|---|---|
| wybod y cyfaint.<br><br>Mae tystiolaeth hefyd sy'ndangos gallu'r dysgwr i rannu siapiau 3D yn giwboidau llai i gyfrifo cyfaint a chyfrifo arwynebeddau cyfansawdd wrth gyfrifo cyfaint prismau; mae hyn yn nodweddiadol o waith Lefel 7. | | tudalennau 24-26 |
| Mae'r dystiolaeth yn dangos bod y dysgwr yn medru helaethu siapiau â ffactor graddfa rhif cyfan positif, ond mae tystiolaeth hefyd y gall wneud yn ôl ffactor graddfa sy'n ffracsiwn ;mae hyn yn nodweddiadol o waith Lefel 7. | " | tudalennau 75-77 |
| Mae'r dystiolaeth yn dangos bod y dysgwr yn medru defnyddio theorem *Pythagoras* mewn dau ddimensiwn (Lefel 7). | " | tudalennau 175-189 |
| O fewn y llinyn data, ceir tystiolaeth dda iawn o waith ar Lefel 6 ond ceir hefyd peth gwaith cychwynnol ar Lefel 4 a Lefel 5, a thystiolaeth o waith ar lefelau 7 ac 8 hefyd. | " | |
| Gwelir tystiolaeth o allu'r dysgwr i ddefnyddio cymedr, modd, canolrif ac amrediad data arwahanol, sy'n nodweddiadol o waith ar Lefel 4 a Lefel 5.<br><br>Mae tystiolaeth raenus hefyd i ddangos y gall y dysgwr amcangyfrif cymedr setiau o ddata wedi'u grwpio (Lefel 7).<br><br>Ceir peth tystiolaeth hefyd bod y dysgwr yn medru llunio tablau a diagramau amlder cronnus a defnyddio amcangyfrifon o'r canolrif ac amrediad rhyngchwartel (Lefel 8). | " | tudalennau 108-109<br><br>tudalennau 109-112, 117, 126-128<br><br>tudalennau 129-130 |
| Gwelir tystiolaeth dda o allu'r dysgwr i gasglu a chofnodi data'n briodol trwy ddefnyddio siartiau tali. | " | tudalennau 44-45 |
| Mae tystiolaeth dda i ddangos bod y dysgwr yn medru llunio:<br>diagramau amlder;<br><br>polygonau amlder;<br><br>siartiau cylch; a<br>diagramau gwasgariad. | " | tudalennau 44 -45, 102-4<br>tudalennau 47-48 105-106<br>tudalennau 95-101<br>tudalennau 113-116, 118-125 |
| Gwelir tystiolaeth bod y dysgwr yn medru defnyddio'r raddfa debygolrwydd o 0 i 1, wrth ddarganfod tebygolrwydd haparbrofion. | " | tudalennau 49-50 |
| Mae enghreifftiau graenus i dystio y gall y dysgwr nodi'r holl ganlyniadau wrth ymdrin â chyfuniad o ddau arbrawf. | " | tudalennau 50-57 |

**Lefel cyd-fynd orau: 6**

Adlewyrchir yn y dystiolaeth o waith cyflawniad o'r sgiliau a'r ystod yn y rhaglen astudio mathemateg. Mae gwaith y dysgwr yma'n cynnwys enghreifftiau ar Lefelau 4, 5, 6, 7 ac 8. Er bod enghreifftiau o allu'r dysgwr i gwblhau dulliau a ddysgwyd, mae peth tystiolaeth hefyd o gymhwyso'r sgiliau hyn mewn cyd-destun, yn bennaf biliau trydan a nwy.

Ar sail y dystiolaeth sydd ar gael, mae'r dysgwr yn sicr yn gweithio yn uwch na lefel 5, gyda thystiolaeth o fwyafrif helaeth yr agweddau ar Lefel 6. Yn ogystal â hynny, gwelir ychydig o agweddau Lefel 7 a pheth Lefel 8. Fodd bynnag, byddai tystiolaeth ychwanegol o gyfleoedd i gymhwyso, i gyfiawnhau a chefnogi casgliadau yn sicrhau bod cyflawniad y dysgwr yn uwch o fewn y Lefel. Felly'r dyfarniad cyd-fynd orau yw Lefel 6.