

Teacher assessment

Key stages 2 and 3

Mathematics: learner profile

Level 4

Foreword

This profile is intended to help teachers see the type of evidence that can be used to take to a cluster meeting, in order to support the best-fit judgements made. It also clearly demonstrates that the evidence predominantly lies in a pupil's book and hence is what is already available to the teacher.

The profile also includes a detailed commentary which provides clarity on why the best-fit judgment was awarded. There is no suggestion or expectation that a learner profile is produced for every pupil in the cohort or that teachers write such an extensive commentary.

**Learner
Profile
Mathematics
Level 4**

Ó. 229 MÚ

9.9.14

Place Value- mix and

Reading whole
numbers in words
and figures up
to millions

Two hundred
and ninety-four
thousand,
one hundred
and sixty-one

Six million, five
hundred and
forty-seven
thousand, four
hundred and
ninety-two

6 547 492 ✓

Ninety-nine
thousand,
five hundred
and two

99 502 ✓

One million,
twenty
thousand and
seventeen

1 020 017 ✓

Two hundred
and seven
thousand
and one

207 001 ✓

Three million,
three hundred
and eighty-three
thousand and

3 383 095 ✓

Eleven million,
one hundred
and ten

11 000 110 ✓

Five hundred
and ninety-four
thousand
and ninety

594 090 ✓

Nine hundred
and nine
thousand,
one hundred
and four

909 104 ✓

Eight million,
ten thousand,
four hundred
and fifty

8 010 450 ✓

Six hundred
and eighty-two
thousand,
five hundred
and eight

682 508

Two million,
nine hundred
and eight
thousand and
seventy-three

2 908 073

One million,
three hundred
and seven
thousand and

1 307 042

Twenty million,
ninety thousand
and fifty

20 090 050

* You have correctly matched words and figures of millions numbers.

W.F. →

To now write numbers in words and figures yourself. Diolch miss 😊

Writing whole numbers in words and figures up to millions.

100,000

on, six hundred and thirty thousand, nine hundred and

hundred thousand, three

million, eight hundred and ninety one thousand three hundred and one.

d. Twelve million, eight hundred and six thousand, three hundred and four

e. Fourteen million, ninety six thousand three hundred and sixty three.

f. Four million, one thousand and two

2a. 24, 974, 694

b. 82, 612, 032

c. 30, 030, 03 30, 030, 030

d. 8, 971, 201

Challenge

e. 3,500,001,062 = three billion, five hundred million, one thousand and sixty two.



Target met. I love the challenge you set yourself. Well done! (m) diolch miss thanks for explaining

10.9.14.

Writing Numbers

1. Two hundred and sixty thousand three hundred and forty one. 260,341. ✓

2. 400,020 ✓

3. 804,602 ✓

4. 5,350,001 ✓

5. 9,200,040 ✓

6. 7,003,100 ✓

7. 26,000,008 ✓

8. 140,050,300 ✓

Confident writing in figures. (m)

Add 10

1. $6390 + 10 = 6400$ ✓

2. $7990 + 10 = 8000$ ✓

3. $9990 + 10 = 10,000$ ✓

4. $99,993 + 10 = 100,003$ ✓

5. $999,997 + 10 = 1,000,007$ ✓

6. $9,999,995 + 10 = 10,000,005$ ✓

Great use of the strategy discussed today ☺

Partitioning numbers

$$12,326 = 10,000 + 2,000 + 300 + 20 + 6$$

$$1. 262,429 = 200,000 + 60,000 + 2,000 + 400 + 20 + 9$$

$$2. 117,260 = 100,000 + 10,000 + 7,000 + 200 + 60$$

$$3. 394,106 = 300,000 + 90,000 + 4,000 + 100 + 6$$

$$4. 207,037 = 200,000 + 7,000 + 30 + 7$$

$$5. 1,947,243 = 1,000,000 + 900,000 + 40,000 + 7,000 + 200 + 40 + 3$$

$$6. 4,632,107 = 4,000,000 + 600,000 + 30,000 + 2,000 + 100 + 7$$

$$7. 7,041,620 = 7,000,000 + 40,000 + 1,000 + 600 + 20$$

$$8. 9,105,002 = 9,000,000 + 100,000 + 5,000 + 2$$

$$9. 100,000 + 40,000 + 3,000 + 200 + 40 + 9 = 143,249$$

$$10. 300,000 + 70,000 + 600 + 2 = 370,602$$

$$11. 8,000 + 60 + 90,000 + 1 + 400,000 = 498,001$$

$$12. \underline{40} + 7,000 + 300,000 = 347,040$$

$$. 370,040$$

$$13. 5,000,000 + 300,000 + 70,000 + 6,000 + 500 + 30 + 1 = 5,376,531$$

$$14. 7,000,000 + 900,000 + 10,000 + 200 = 7,910,200$$

10.9.14

Place Value Game

* You enjoyed playing this game.
very much I hope we can do this
again.

L4

Present information and results systematically

15.9.14

Making Numbers

6		1	8	5
---	--	---	---	---

The largest number is 8,651. ✓

The largest even number is 8,516. ✓

The smallest number is 1,568. ✓

The smallest odd number is 1,685. ✓

3	8	1	9
---	---	---	---

9,831	8,931	3,981	1,983
9,813	8,913	3,918	1,938
9,381	8,391	3,891	1,893
9,318	8,319	3,819	1,839
9,183	8,193	3,198	1,398
9,138	8,139	3,189	1,389

All numbers found and ordered. (M)

Ordering numbers in descending order

1. 9,110,487, 7,934,797, 7,110,986, 6,656,822, 4,400,162, 2,965,989 ✓

2. 8,165,623, 6,913,340, 6,164,240, 5,974,008, 2,826,707 ✓

Ordering whole numbers up to millions.

5 667, 4 251 982, 1 775 245

007, 7 475 411, 5 ¹³¹ ~~38~~ 429,
7 475, 1 176 00,

7-digit numbers. @diolch yn

Key vocabulary

ascending - something going up, increasing.

descending - to go or to come down, decreasing.

ascending order

5. 3 979 363, 6 787 703, 9 068 976, 9 497 468.

6. 5 675 070, 6 157 723, 8 608 707, 8 795 112,
9 167 587.

descending order

7. 7 775 278, 6 055 708, 4 707 073, 3 701 799,
3 683 814, 3 088 006, 1 610 085.

8. 8 491 098, 7 334 431, 6 902 739, 6 555 280,
4 028 017, 3 795 762.

Confident use of ordering vocabulary displayed today. @diolch yn fawr!

Understanding
place value and
ordering using
> and <.

13. $914,573 > 619,021$

* You can use > and < to compare.
Counting on 10/100/1,000

+10 3670

3680

3690

~~3700~~ 3700

3710

+10 27,480

27,490

27,500

27,510

27,520

2. $173,910 > 173,901$

3. $271,351 > 217,351$

4. $541,070 < 541,700$

+100 81,606

5. $43,517 < 43,571$

81,706

81,806

6. $79,682 < 79,862$

81,906

82,006

7. $35,101 < 35,110$

+1,000 17,320

8. $28,172 > 28,127$

18,320

19,320

9. $61,074 < 61,704$

20,320

21,320

10. $141,041 > 114,041$

+10,000 65,649,87

11. $701,419 < 710,491$

65,749,87

65,849,87

12. $110,410 > 110,140$

65,949,87

6 594 6 604 987
 6 614 987
 6 6 24 987 ✓

+1,100

363 879
 364 979
 366 079
 367 179
 368 279
 369 379 ✓

+100

7 237 889
~~7 238~~ 7 237 989
 7 238 089
 7 238 189
 7 238 289
 7 238 389 ✓

Extra

+101

2 345
 2 446
 2 547
 2 648
 2 749
 2 850 ✓



You can count on
 in 10/100/1000 in
 more than one
 column confidently
 dealing with when
 a column reaches
 '9'. (m)

+110

7 865
 7 975
 8 085
 8 195
 8 305
 8 415 ✓

* I agree with
 your self
 assessment

* Arddlerzhog!
 diolch

+1,010

+1,010

234 678
 235 688
 236 698
 237 708
 238 718
 239 728 ✓

19.09.14

Number Systems

Use these lists to find the Hindu

1. $\overline{100011} = 100,011$ ✓

1. MDC = 46 ✓

2. $\overline{123} = 123$ ✓

2. LVII = 57 ✓

3. $\overline{11202} = 11,202$ ✓

3. XCIV = 11 ✓

4. XXV = 2 ✓

Woodpeckered Numbers

1. $14 - 8 = 6$ ✓

10. $14 + 8 = 22$ ✓

2. $5 + 13 = 18$ ✓

11. $5 + 8 - 6 = 7$ ✓

3. $14 - 3 = 11$ ✓

12. $17 - 8 + 2 = 11$ ✓

4. $12 + 8 = 20$ ✓

13. $14 - 2 - 2 = 10$ ✓

5. $18 - 13 = 5$ ✓

14. $8 + 3 + 9 = 20$ ✓

6. $3 + 13 = 16$ ✓

15. $13 - 10 + 9 = 12$ ✓

7. $19 - 6 = 13$ ✓

16. $7 + 7 - 5 = 9$ ✓

8. $8 + 11 = 19$ ✓

17. $5 + 8 = 3 + 10$ ✓

9. $12 - 8 = 4$ ✓

18. $7 + 11 = 9 + 9$ ✓

$$19. 15 - 6 = 19 - 10$$

$$15. 3 + 4 = 9 - 3$$

$$20. 12 - 20 = 5 + 3$$

$$16. 10 + 3 = 15 - 3$$

21. Stolen Signs

$$17. 18 - 4 = 7 + 7$$

$$1. 6 + 8 + 3 = 17$$

$$18. 14 - 2 = 9 + 3$$

$$2. 9 - 3 = 2 + 4$$

$$3. 6 + 4 = 5 + 5$$

$$4. 7 - 3 = 8 - 12, 7 - 3 + 8 = 12$$

$$5. 5 - 5 + 7 = 6 + 6$$

$$6. 9 + 2 = 4 + 15, 9 + 2 + 4 = 15$$

$$7. 7 - 4 = 3 + 0$$

$$8. 6 + 8 = 4 + 10$$

$$9. 9 - 8 = 7 - 8, 9 - 8 + 7 = 8$$

$$10. 6 + 5 = 9 + 2$$

$$11. 8 + 8 = 3 + 13$$

$$12. 9 - 1 = 4 + 4$$

$$13. 4 + 7 = 16 - 5$$

$$14. 9 - 8 = 7 - 6, 9 - 8 = 7 - 6$$

Well corrected



23.9.14

Counting back in 10/100/1,000

-1,000

723,124

722,124

721,124

720,124

719,124 ✓

-10

231,638

~~221,628~~ 230,628

229,618

228,608

227,598 ✓

-10,000

6,544,987

6,534,987

6,524,987

6,514,987

6,504,987 ✓

-1,100

362,379

361,279

360,179

359,079

357,979 ✓

-100

7,237,289

7,237,189

7,237,089

7,236,989 ✓

7,236,889 ✓

-1,001

734,980

733,979

732,978

731,978 731,977

730,976 ✓

Extra

-101

2,342

2,241

2,140

2,039

1,938 ✓ (m)

Da iawn
work.

Confident

I agree with your
self-assessment.

(m)

-110

7,415

7,305

7,271,95

7,085

6,975 ✓

Well done for challenging
yourself to counting
back in more than (m)
one column. Target met.



What has happened?

1. $\textcircled{6}8,972 \rightarrow \textcircled{8}8,972 + 20,000$ ✓

2. $1,3\textcircled{5}7,802 \rightarrow 1,3\textcircled{9}7,802 + 40,000$ ✓

3. $50\textcircled{4},801 \rightarrow 50\textcircled{2},801 - 2,000$ ✓

4. $8,6\textcircled{9}042 \rightarrow 8,6\textcircled{8}9,042 - 1,000$ ✓

5. $9\textcircled{0},568 \rightarrow 9\textcircled{9},568 + 9,000 - 9,000$ ✓✓

6. $\overset{8}{\textcircled{7}}1,279 \rightarrow 8\textcircled{6}9,279 - 2,000$ ✓

You have secure place value understanding.

Ardderchog! (m)
diolch

Understanding
place value using
> and <

tra

391 + 5,000

④ + 20,000 20,020

6 - 100

4 - 10



which is larger:

1. 32 thousand or 30 thousand
32,000 > 30,000

2. 65 tens or 6 hundreds
650 > 600

3. 7 thousand or 71 hundred
7,000 < 7,100

4. 14 hundred or 2 thousand
1,400 < 2,000

5. 79 tens or 7 thousand
790 < 7,000

6. 4 thousands or 41 hundreds
4,000 < 4,100

7. 62 thousands or 123 hundred
62,000 > 12,300

8. 477 tens or 63 hundreds
 $4,770 < 6,300$ ✓

9. 563 tens or 65 thousands
 $5,630 < 65,000$ ✓

10. 62 thousand or 20 hundred
 $62,000 > 2,000$ ✓



(d)

(m)

* Da iawn, great number worth understanding
diolch

-10, 100, 1,000 from 7 digit numbers

1. $3,000,000 - 1 = 2,999,999$ ✓

2. $5,000,000 - 10 = 4,999,990$ ✓

3. $8,000,000 - 100 = 7,999,900$ ✓

4. $4,000,000 - 1,000 = 3,999,000$ ✓

5. $6,000,000 - 110 = 5,999,890$ ✓

6. $9,000,000 - 1,001 = 8,998,999$ ✓

✓ Superb. (m)
Diolch yn fawr mai
symraeg has improved

247,500

1. $247.5 \times 1,000 = 2,475$ ✓

2. $93.74 \times 100 = 9,374$ ✓

3. $87.8 \times 1,000 = 8,980$ ✓

4. $1,074 \times 10 = 10,740$ ✓

5. $7,846 \times 1,000 = 7,846,000$ ✓

6. $643,889 \div 100 = 6,438.89$ ✓

7. $1,934,700 \div 10 = 193,470$ ✓

8. $34,760 \div 100 = 347.6$ ✓

9. $6,210 \div 10 = 621$ ✓

10. $23,6832 \div 100 = 236.832$ ✓

11. $9,073 \times 1,000 = 9,073$ ✓

12. $23,572 \div 100 = 235.72$ ✓

13. $21,667 \div 10 = 2,166.7$ ✓

I agree with your self assessment. 😊
You can confidently $\times / \div$ by 10/100/1000
with decimals. *wugh!*

Class target/learning objective met.



Use understanding of place value to multiply and divide by 10 and 100 with whole numbers (L4) and decimals (L5)

$$7. \begin{array}{l} 10 \div x = 3 \\ 10 \div 7 = 3 \end{array}$$

$$5. \begin{array}{l} 4x = 12 \\ 4 \times 3 = 12 \end{array}$$

$$6. \begin{array}{l} \frac{y}{3} = 5 \\ 15 \div 3 = 5 \end{array}$$

$$5. 5 - 3 + 2 = 4$$

$$6. 2 + 5 = 7$$

$$7. 6 + 4 = 10$$

$$8. 8 \times 6 + 7 = 55$$

$$9. 5 - 3 - 2 = 0$$

$$7. \begin{array}{l} 7 \times 7 = 49 \\ 2 \frac{1}{2} \times 2 = 49 \end{array}$$

$$8. \begin{array}{l} 20 = 4 \\ m \end{array}$$

$$5 \times 4 = 20$$

$$20 \div 5 = 4$$

$$\frac{20}{5} = 4$$

$$9. \begin{array}{l} 2t + 1 = 7 \\ (2 \times 3) + 1 = 7 \end{array}$$

Solve the equation 10. $\begin{array}{l} 2w - 1 = 3 \\ (2 \times 2) - 1 = 3 \end{array}$

$$1. \begin{array}{l} 6 + 6 = 12 \\ 6 + x = 12 \\ 6 + 6 = 12 \end{array}$$

$$11. \begin{array}{l} 5b + 1 = 16 \\ (5 \times 3) + 1 = 16 \end{array}$$

$$2. \begin{array}{l} m + 3 = 14 \\ 11 + 3 = 14 \end{array}$$

$$12. \begin{array}{l} 3x - 3 = 6 \\ (3 \times 3) - 3 = 6 \end{array}$$

$$3. \begin{array}{l} p - 1 = 5 \\ 6 - 1 = 5 \end{array}$$

1. Algebra

1. $3a + b = 18$

$15 + 3 = 18$ ✓

2.

2. $2a + 3b =$

$10 + 9 = 19$ ✗

3. $a - b - c$

$5 - 3 - 1 = 1$ ✓

4. $4a \div 2 =$

$20 \div 2 = 10$ ✓

5. $6b + 3c + 8a =$

$18 + 3 + 40 = 61$ ✓

6. $2b - c =$

$6 - 1 = 5$ ✓

7. $2b - 2c =$

$6 - 2 = 4$ ✓

8. $5b + 7a =$

$15 + 7 = 22$ ✓

9. $10a \times 10 =$

$10 \times 10 = 100$ ✓

Task 2

1. $x + y = 13$ $y = 4$ ✓

Use understanding of place value to multiply and divide decimals by 10 and 100. (L5)

9.

2. 1

9

3. 2

18

4. 2

18

5. $3x + y = 50$ $y = 23$

$27 + 23 = 50$ ✓

6. Challenge

1. $6a + 3b + c = 40$ ✓

2. If y is 7 what is xc ? ✓

$y \times xc = 21$

$7 \times 3 = 21$ ✓

Good understanding

check yn four wych!

L5

Understanding of place value to multiply and divide whole numbers and decimals

7 7.10.14Decimal multiplication

1. $0.17 \times 10 = 1.7$ ✓ 16. $11.41 \times 100 = 1,141$ ✓

2. $3.56 \times 100 = 356$ ✓ 17. $18.014 \times 10 = 180.14$ ✓

3. $21.4 \times 10 = 214$ ✓ 18. $3.147 \times 100 = 314.7$ ✓

4. $13.04 \times 100 = 1304$ ✓ 19. $£714.000 \div 100 = £7,140$ ✓

5. $9.71 \times 10 = 97.1$ ✓ 20. $£26,302 \div 100 = £263.02$ ✓

6. $14.26 \times 100 = 1,426$ ✓ 21. $£23,407 \div 100 = £234.07$ ✓

7. $10.01 \times 10 = 100.1$ ✓ 22. $£61,487 \div 100 = £614.87$ ✓

8. $31.34 \times 100 = 3,134$ ✓ 23. $£45,061 \div 100 = £450.61$ ✓

9. $18.09 \times 10 = 180.9$ ✓ 24. $£781,132 \div 100 = £7,811.32$ ✓

10. $30.08 \times 100 = 3,008$ ✓ 25. $£413.20 \times 100 = £41,320$ ✓

11. $4.19 \times 10 = 41.9$ ✓ 26. $£9,090.90 \times 100 = £909,090$ ✓

12. $25.94 \times 100 = 2,594$ ✓

13. $53.51 \times 10 = 535.1$ ✓

14. $1.81 \times 100 = 181$ ✓

15. $0.253 \times 10 = 2.53$ ✓

You are able to
x / ÷ by 10/100
including with
decimals.
Glück.

$$10 \cdot 10 \cdot 14$$

Algebra Practice

$$a=5 \quad b=3 \quad c=1$$

$$\begin{aligned} 1. \quad 4a + b &= \\ (4 \times 5) + (3) &= \\ 4 \times 20 + 3 &= 23 \end{aligned}$$

$$\begin{aligned} 3. \quad 5b - 3a &= \\ (5 \times 4) - (3 \times 2) &= \\ 20 - 6 &= 14 \end{aligned}$$

$$\begin{aligned} 2. \quad 6b + 2a &= \\ (6 \times 3) + (2 \times 5) &= \\ 18 + 10 &= 28 \end{aligned}$$

$$\begin{aligned} 4. \quad 7a - 1c - 3b &= \\ (7 \times 5) - (1 \times 2) - (3 \times 4) &= \\ 42 - 2 - 12 &= 28 \end{aligned}$$

$$\begin{aligned} 3. \quad 7c - 2b &= \\ (7 \times 1) - (2 \times 3) &= \\ 7 - 6 &= 1 \end{aligned}$$

$$\begin{aligned} 5. \quad 9b + 11c &= \\ (9 \times 4) + (11 \times 2) &= \\ 36 + 22 &= 58 \end{aligned}$$

$$\begin{aligned} 4. \quad 10b - 4a &= \\ (10 \times 3) - (4 \times 5) &= \\ 30 - 20 &= 10 \end{aligned}$$

$x=8$ what is y ?

$$\begin{aligned} 1. \quad x + y &= 20 \\ 8 + 12 &= 20 \\ y &= 12 \end{aligned}$$

$$\begin{aligned} 5. \quad 6c + 5b + 10a &= \\ (6 \times 1) + (5 \times 3) + (10 \times 1) &= \\ 6 + 15 + 10 &= 31 \end{aligned}$$

$$\begin{aligned} 2. \quad y + x &= 18 \\ 10 + 8 &= 18 \\ y &= 10 \end{aligned}$$

$$a=6 \quad b=4 \quad c=2$$

$$\begin{aligned} 1. \quad 6a - 3c &= \\ (6 \times 6) - (3 \times 2) &= \\ 36 - 6 &= 30 \end{aligned}$$

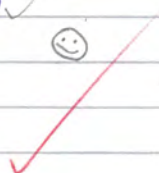
$$\begin{aligned} 3. \quad 3x + y &= 50 \\ (3 \times 8) + y &= 50 \\ 24 + 26 &= 50 \\ y &= 26 \end{aligned}$$

$$\begin{aligned} 2. \quad 10b + 3b + 2c &= \\ (10 \times 4) + (3 \times 4) + (2 \times 2) &= \\ 40 + 12 + 4 &= 56 \end{aligned}$$

$$\begin{aligned} 4. \quad 2x + y &= 40 \quad \checkmark \\ 16 + y &= 40 \quad \checkmark \\ 16 + 24 &= 40 \quad \checkmark \\ y &= 24 \quad \checkmark \end{aligned}$$

$$\begin{aligned} 5. \quad 2x + y &= 24 \quad \checkmark \\ 16 + y &= 24 \quad \checkmark \\ y &= 8 \quad \checkmark \end{aligned}$$

$$\begin{aligned} 6. \quad 5x + y &= 60 \quad \checkmark \\ 40 + y &= 60 \quad \checkmark \\ y &= 20 \quad \checkmark \end{aligned}$$



⑤ 10.10.14

Football 13.10.14

football fans

	Attendance	to nearest 1000	to nearest 100	to nearest 10
10.	4 721	5 000	4 700	4 720 ✓
1.	8 909	9 000	8 900	8 910 ✓
2.	6 005	6 000	5 990	6 010 ✓
3.	7 499	7 000	7 500	7 500 ✓
4.	16 426	16 000	16 400	16 430 ✓
5.	22 677	23 000	22 700	22 680 ✓
6.	59 898	60 000	59 800	59 900 ✓
7.	61 400	61 000	61 400	61 400 ✓
8.	49 909	50 000	49 900	49 910 ✓
9.	85 545	86 000	85 500	85 550 ✓
10.				

the number of	to the nearest
1. people in Britain	1,000,000 ✓
2. words in a dictionary	10,000 ✓
3. tiles on a roof	100 ✓
4. beans in a can	100 ✓
5. windows in a tower block	100/1000 ✓
6. children in a class	100-10 ✓

Well done! You are showing a good understanding of rounding numbers. H

Rounding 4/5 digit numbers to nearest 10,000 and 1000

Round to the nearest whole number

$$1. 6.7 = 7 \quad \checkmark$$

$$2. 8.3 = 8 \quad \checkmark$$

$$3. 8.5 = 9 \quad \checkmark$$

Multiply numbers
and decimals by
a multiple of 10.
(LNFY6)

dergeg!

solchi ya fawr Mas H

Extra questions

$$0.08 \times 3.5 = 0.28$$

$$0.08 \times 3 = 0.24$$

$$0.08 \times 0.5 = 0.04$$

✓
(d)
and corrected

Name: Curys W. J
C - Using table knowledge

Date: 14.10.14

Mental calculations

$$8 \times 70 = 560 \quad \checkmark$$

$$80 \times 4 = 320 \quad \checkmark$$

$$40 \times 8 = 320 \quad \checkmark$$

$$30 \times 80 = 2400 \quad \checkmark$$

$$600 \times 8 = 4800 \quad \checkmark$$

$$0.3 \times 80 = 24 \quad \checkmark$$

$$0.7 \times 80 = 56 \quad \checkmark$$

$$8 \times 0.5 = 4 \quad \checkmark$$

$$3 \times 0.8 = 2.4 \quad \checkmark$$

$$0.6 \times 0.8 = 0.048 \cdot 0.48 \quad \checkmark \text{ (c)}$$

* You can multiply by multiples of 10.

Fraction of numbers
based on multiples
of 8 in the context
of money/decimal
amounts. (L).

14.10.14

8x table

- * Great use of 8x table facts for associated division. ✓
- * You can find fractional eighths of numbers/money. 😊

Name: Cory W. J.

Date: 14.10.14

Mental Maths

Multiplication, division and fractions- 8x (T)

A.

$13 \times 8 = 104$

$16 \times 8 = 128$

$14 \times 8 = 112$

$20 \times 8 = 160$

$80 \times 8 = 640$

$90 \times 8 = 720$

$900 \times 8 = 7200$

$120 \times 8 = 960$

$11 \times 80 = 880$

$50 \times 80 = 4000$

$80 \times 800 = 64,000$

$400 \times 80 = 32000$

B.

$1/8 \text{ of } 16 = 2$

$2/8 \text{ of } 72 = 9 \times 2 = 18$

$7/8 \text{ of } 8 = 1 \times 7 = 7$

$5/8 \text{ of } 24 = 3 \times 5 = 15$

$6/8 \text{ of } 56 = 7 \times 6 = 42$

$4/8 \text{ of } 40 = 5 \times 4 = 20$

$7/8 \text{ of } 80 = 10 \times 7 = 70$

$2/8 \text{ of } 32 = 4 \times 2 = 8$

$1/8 \text{ of } 64 = 8$

$3/8 \text{ of } 96 = 12 \times 3 = 36$

$5/8 \text{ of } 48 = 6 \times 5 = 30$

$6/8 \text{ of } 88 = 11 \times 6 = 66$

C.

$1/8 \text{ of } \pounds 16.24 = \pounds 8.03$

$1/8 \text{ of } \pounds 72.08 = \pounds 9.01$

$1/8 \text{ of } \pounds 8.64 = \pounds 1.08$

$1/8 \text{ of } \pounds 24.32 = \pounds 3.04$

$1/8 \text{ of } \pounds 56.88 = \pounds 7.11$

$1/8 \text{ of } \pounds 40.96 = \pounds 5.12$

$7/8 \text{ of } \pounds 80.08 = \pounds 10.01 \times 7 = \pounds 70.07$

$2/8 \text{ of } \pounds 32.96 = \pounds 4.12 \times 2 = \pounds 8.24$

$5/8 \text{ of } \pounds 64.16 = \pounds 8.02 \times 5 = \pounds 40.10$

$3/8 \text{ of } \pounds 96.08 = \pounds 12.01 \times 3 = \pounds 36.03$

$5/8 \text{ of } \pounds 48.40 = \pounds 6.05 \times 5 = \pounds 30.25$

$6/8 \text{ of } \pounds 88.88 = \pounds 11.11 \times 6 = \pounds 66.66$

Time _____

A.

$$\frac{12}{12}$$

B.

$$\frac{12}{12}$$

C.

$$\frac{12}{12}$$

Ardddechog!

(W)

76

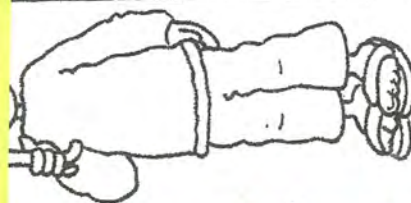


Finding fractions of whole numbers
and decimal numbers

Rounding to nearest
10/100 or 1000.

- These are the average annual rainfalls of some places around the world. Round them to the nearest 10 mm, 100 mm and 1000 mm.

place	rainfall	to nearest 10 mm	to nearest 100 mm	to nearest 1000 mm
1. India	11430 mm	~~11,430 mm~~	~~11,400 mm~~	~~11,000 mm~~
2. Yugoslavia	4648 mm	~~4,650 mm~~	~~4,600 mm~~	~~5,000 mm~~
3. Australia	4496 mm	~~4,500 mm~~	~~4,500 mm~~	~~4,000 mm~~
4. Colombia	11770 mm	~~11,770 mm~~	~~11,800 mm~~	~~12,000 mm~~
5. Cameroon	10277 mm	~~10,280 mm~~	~~10,300 mm~~	~~10,000 mm~~
6. Astrakhan (in Russia)	1625 mm	~~160~~	~~163~~	~~0 mm~~



Very good rounding to the nearest 10, 100 and 1000.

Round to nearest whole number

3 a. $18.7 = 19$ ✓

f. $5.67\text{ m} = 6\text{ m}$ ✓

b. $21.3 = 21$ ✓

g. $5.98\text{ m} = 6\text{ m}$ ✓

c. $582.9 = 583$ ✓

h. $49.98\text{ m} = 50\text{ m}$ ✓

d. $23.45 = 23$ ✓

i. $32.12\text{ m} = 32\text{ m}$ ✓

e. $111.02 = 111$ ✓

j. $11.01\text{ m} = 11\text{ m}$ ✓

f. $23.45 = 23$ ✓

Excellent extension
work. Well done.
KH

g. $74.85 = 75$ ✓

h. $45.23 = 45$ ✓

i. $3468.46 = 3468$ ✓

j. $5900.32 = 5900$ ✓

Rounding decimals
(1-place / 2-place)
to nearest whole.

4a. $5.7\text{ m} = 6\text{ m}$ ✓

b. $3.8\text{ m} = 4\text{ m}$ ✓

c. $9.2\text{ m} = 9\text{ m}$ ✓

d. $11.9\text{ m} = 12\text{ m}$ ✓

e. $34.7\text{ m} = 35\text{ m}$ ✓

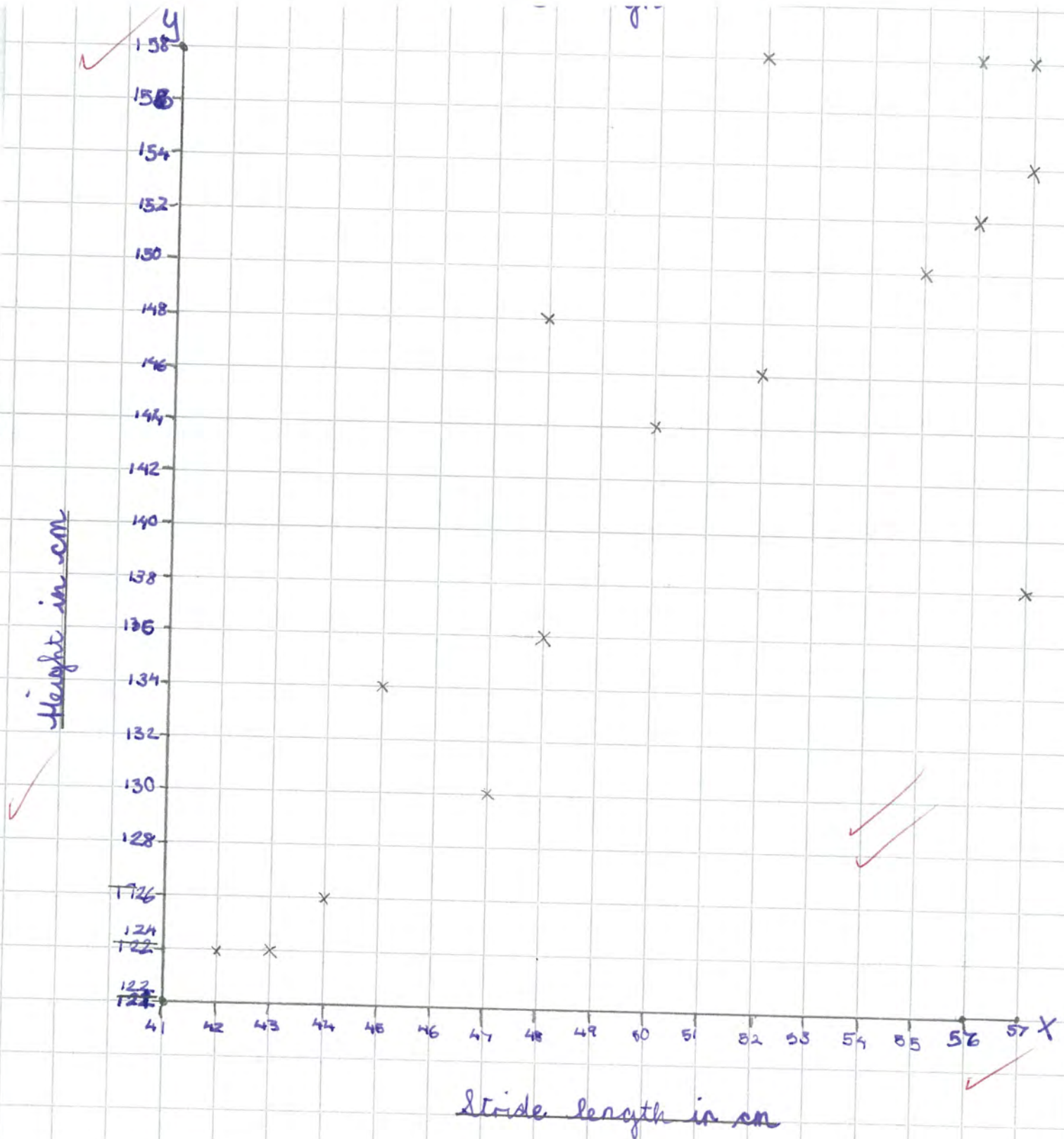
(Supply)

Presenting data
in a scatter graph

16.10.14

Scatter graph

Target: To practise using success criteria
for scatter graphs and develop confidence.



* A great scatter graph using the success criteria.

W.F Work out number scales independently. I will try to use this next time



Name: _____

Date: 14.10.14

Multiplying a three digit number by 2-digit numbers

128×38

	100	20	8
30	3,000 ✓	600 ✓	240 ✓
8	800 ✓	160 ✓	64 ✓

$$\begin{array}{r} 3,000 \\ 600 \\ 240 \\ 800 \\ 160 \\ 64 \\ \hline 4,864 \end{array}$$

382×85

	300	80	2
80	24,000 ✓	6,400 ✓	160 ✓
5	~~800~~ 1,500 ✓	400 ✓	10 ✓

$$\begin{array}{r} 24,000 \\ 6,400 \\ 1,500 \\ \hline 31,900 \end{array}$$

Multiplying a 2/3 place decimal number by a single-digit number (x8)

3.42×8

	3	0.4	0.02
8	24 ✓	3.2 ✓	0.16 ✓

$$\begin{array}{r} 24 \\ 3.2 \\ 0.16 \\ \hline 27.36 \end{array}$$

0.253×8

	0.2	0.05	0.003
8	1.6 ✓	0.4 ✓	0.024 ✓

0.364×8

	0.3	0.06	0.004
8	2.4 ✓	0.48 ✓	0.032 ✓

Excellent 😊
Calculating of decimals x 1-digit numbers.

Choose one of the written calculations and write your own word problem for the calculation:

If 128 people come to your party and they each have 2 cupcakes how many more cupcakes do you need to make?

there were 256 cupcakes

$$16 \cdot 10 \cdot 14$$

Multiplying by 20

1. $2 \times 20 =$

$$2 \times 2 = 4$$

$$2 \times 20 = 40$$

2. 4×20

$$4 \times 2 = 8$$

$$4 \times 20 = 80$$

3. 6×20

$$6 \times 2 = 12$$

$$6 \times 20 = 120$$

4. $8 \times 20 =$

$$8 \times 2 = 16$$

$$8 \times 20 = 160$$

Multiplying 21

5. 2×21

$$2 \times 20 = 40$$

$$2 \times 1 = 2$$

$$21 \times 2 = 42$$

6. 4×21

$$4 \times 20 = 80$$

$$4 \times 1 = 4$$

$$4 \times 21 = 84$$

Multiplying 19

7. 2×19

$$2 \times 20 = 40$$

$$40 - 2 = 38$$

8. $4 \times 19 =$

$$4 \times 20 = 80$$

$$80 - 4 = 76$$

9. 6×19

$$6 \times 20 = 120$$

$$120 - 6 = 114$$

10. 8×19

$$8 \times 20 = 160$$

$$160 - 8 = 152$$

Real – life problems (T)

A wedding meal costs £26 per person.

How much would it approximately cost for 316 guests?



This is approximately: $£30 \times 320$
 $£3 \times 32 = £96 \times 100 = £9,600$ ✓

Would it be more or less than this cost? less ✓

Prove it!

300	10	+6	
20	6000	200	120
6	1800	60	36

Difference = £1,404
~~£8,108~~ £8,196

The difference is
 $£9,600 - £1,000 + £404 = £8,196$

What is the approximate area of a pitch that measures 4.21m by 6m?

$4m \times 6m = 24m$ ✓



This is approximately:

Would it be more or less than this measurement? more ✓

Prove it!

4	0.2	0.01
624	1.2	0.06

$= 25.26m$

The difference is
 $24m + 1.6m = 25.6m$

Thank you miss I had a rethink

A toffee apple costs £0.84 St Gwladys PTA want to buy each child a toffee apple as an autumn treat. There are 352 pupils currently at the school. How much would it cost altogether?



This is approximately: $£1 \times 350 = £350$

The difference is $£350$ $£55.68$
 $£295.68$

Would it be more or less than the approximate cost? less

Prove it!

	0.80	0.04	
300	£240 ✓	£12 ✓	
50	£40 ✓	£2 ✓	£295.68
2	£1.60 ✓	0.08 ✓	

Applied in problem solving task. (2)
 3-digit x 2-place decimal.



20.10.14

$$\begin{array}{r|l}
 3 & 0.2 \quad 18 \\
 1.6 & 18 \quad 1.2 \quad 1.2 \\
 & = 19.2 \text{ points}
 \end{array}$$

$$\begin{array}{r|l}
 2 & 5 \quad 0.4 \quad 100 \\
 20 & 100 \quad 8 \quad 8 \\
 8 & 40 \quad 3.2 \quad 40 \\
 & = 151.2 \text{ miles} \quad 152 + 151.2
 \end{array}$$

$$\begin{array}{r|l}
 3 & £8 \quad 0.50 \quad £72 \\
 9 & £72 \quad £4.50 \quad £4.50 \\
 & = £76.50
 \end{array}$$

* You are so much more confident now - apply in problems next.

21.10.14

Word problems

$$\begin{array}{r|l}
 \times 40 & 5 \\
 30 & 1200 \quad 150 = 1350 \\
 2 & 80 \quad 10 = 90 \\
 & = £1440 \text{ points}
 \end{array}$$

$$\begin{array}{r|l}
 \times 3 & 0.6 \quad 0.01 \\
 5 & 15 \quad 3 \quad 0.95 = 18.05 \text{ miles}
 \end{array}$$

$$\begin{array}{r|l}
 \times & 7 \quad 0.2 \quad 0.02 \\
 10 & 70 \quad 2 \quad 0.2 = 72.2 \\
 3 & 36 \quad 1 \quad 0.1 = 36.1 \\
 & = 108.3 \text{ miles}
 \end{array}$$

$$65 \times 10 \mid 5 \mid 0.8 \quad \checkmark$$

$$220 \mid 10 \mid 1.6 = 3031.6 \times 2 \quad ? \quad (d)$$

$$62.2 \text{ cm}$$

$$7. \quad 6 \mid 0.03$$

$$1060 \mid 0.3 = 84.15 \text{ inches} \quad 18 + 0.3 + 0.12 = 18.42 \quad \checkmark$$

$$424 \mid 0.12$$

$$8. \quad \times 10 \mid 0.40 \mid 0.07 \quad \checkmark$$

$$220 \mid 0.80 \mid 0.14 = 220.94 \times 2$$

$$= 441.88$$

Challenge

- Target: To find out about prime numbers.

A prime number is a number that cannot be halved equally eg. 13 17 49 23 05 2. You need to research further, as 49 is not a prime number.

22.10.14 Sorry, I will try harder and look on more than one website.

Multiply 2 and 3-digit numbers by 20

$$1. \quad 83 \times 20$$

$$160 + 6$$

$$166$$

$$166 \times 10 = 1660 \quad \checkmark$$

$$2. \quad 6 \quad 7$$

$$120 \quad 14$$

$$134$$

$$134 \times 10 = 1340 \quad \checkmark$$

$$3. 86 \times 20$$

$$160 \ 12$$

$$172$$

$$172 \times 10 = 1720$$

Multiplying by 5

$$1. 386 \times 5$$

$$150 \ 150 \ 40 \ 3$$

$$193 \times 10 = 1930$$

$$4. 735 \times 20 =$$

$$1400 \ 10$$

$$1470$$

$$1470 \times 10 = 14700$$

$$2. 648 \times 5$$

$$300 \ 20 \ 4$$

$$324 \times 10 = 3240$$

$$5. 629 \times 20$$

$$1200 \ 40 \ 18$$

$$1258$$

$$1258 \times 10 = 12580$$

$$3. 864 \times 5$$

$$400 \ 30 \ 2$$

$$432 \times 10 = 4320$$

$$6. 28.7 \times 20$$

$$40 \ 16 \ 1.4$$

$$57.4$$

$$57.4 \times 10 = 574$$

$$4. 782 \times 5$$

$$350 \ 40 \ 1$$

$$391 \times 10 = 3910$$

Approximating Product.
What approximately is.?

$$7. 93.6 \times 20$$

$$180 \ 6 \ 1.2$$

$$187.2 \times 10 =$$

$$1. 21 \times 58 =$$

$$20 \times 60 = 1200$$

$$8. 32.48 \times 20$$

$$60 \ 4 \ 0.80 \ 16$$

$$64.96$$

$$64.96 \times 10 = 649.6$$

$$2. 45 \times 93 =$$

$$50 \times 90 = 4500$$

$$3. 415 \times 19 =$$

$$400 \times 20 = 8000$$



Confident use
of strategy
Class target met.

$$4. 9.2 \times 6 =$$

$$9 \times 5 = 45 \ 90$$

$9 \times 6 = 54$. I will take
this advice on board

There are 28 children who go to the cinema, each have a can of coke a 76 p what approximately is this?

$$28 \times 76$$

$$28 \times 80 = 2240$$

$$20 \quad 8$$

$$80 \times 16.00 = 1280.00$$

$$1. 419 \times 62 = 25,978$$

$$25,978 \div 60 = 2,597.8 \times 6 = 2$$

$$25,978 \div 62 = 419$$

Monitored 12 Oct '14

Progression steps for multiplication

Level 3

- I know and can use my 2, 3, 4 5 and 10x table ✓
- I know that division is the inverse of multiplication ✓
- I can use my knowledge of multiplication facts for division ✓

Level 4

- I know my tables up to 10×10 ✓
- I can work out division facts from my tables quickly ✓
- I can work out fraction facts from my tables quickly ✓
- I understand place value and can multiply by 10, 100, 1000 ✓
- I can explain the effect of multiplying by 10, 100, 1000 ✓
- I can use a range of methods to solve multiplication problems ✓
- I can carry out multiplication of 3-digit numbers by 1-digit number ✓
- I can multiply a 2-digit number by a 2-digit number ✓

Level 5

- I can use fractions of numbers such as $\frac{7}{8}$ of 32 ✓
- I can carry out multiplication of a three-digit number by a two-digit number ✓
- I can use formal written methods to perform multiplication •

You are still developing formal methods. I will try to use more of these methods.

23.10.14

Scatter graphs

SUCCESS CRITERIA

Use an appropriate scale for each of the numbered axes

Make sure the numbers go next to the lines of the number scales

Plot points carefully and accurately using a cross

Ensure axes are labelled

Ensure graph has a title



Height 12 to 158 cm. Range = $34 \text{ cm} \pm 17 \text{ cm} = 2 \text{ cm per square in height}$
 $16 \pm \frac{1}{2}$

Stride length = $33 \text{ cm} - 57 \text{ cm}$. Range = $15 \text{ cm} = 1 \text{ cm per square of stride length}$
 42

success criteria

SC axis and Y axis.

decide on the correct scale

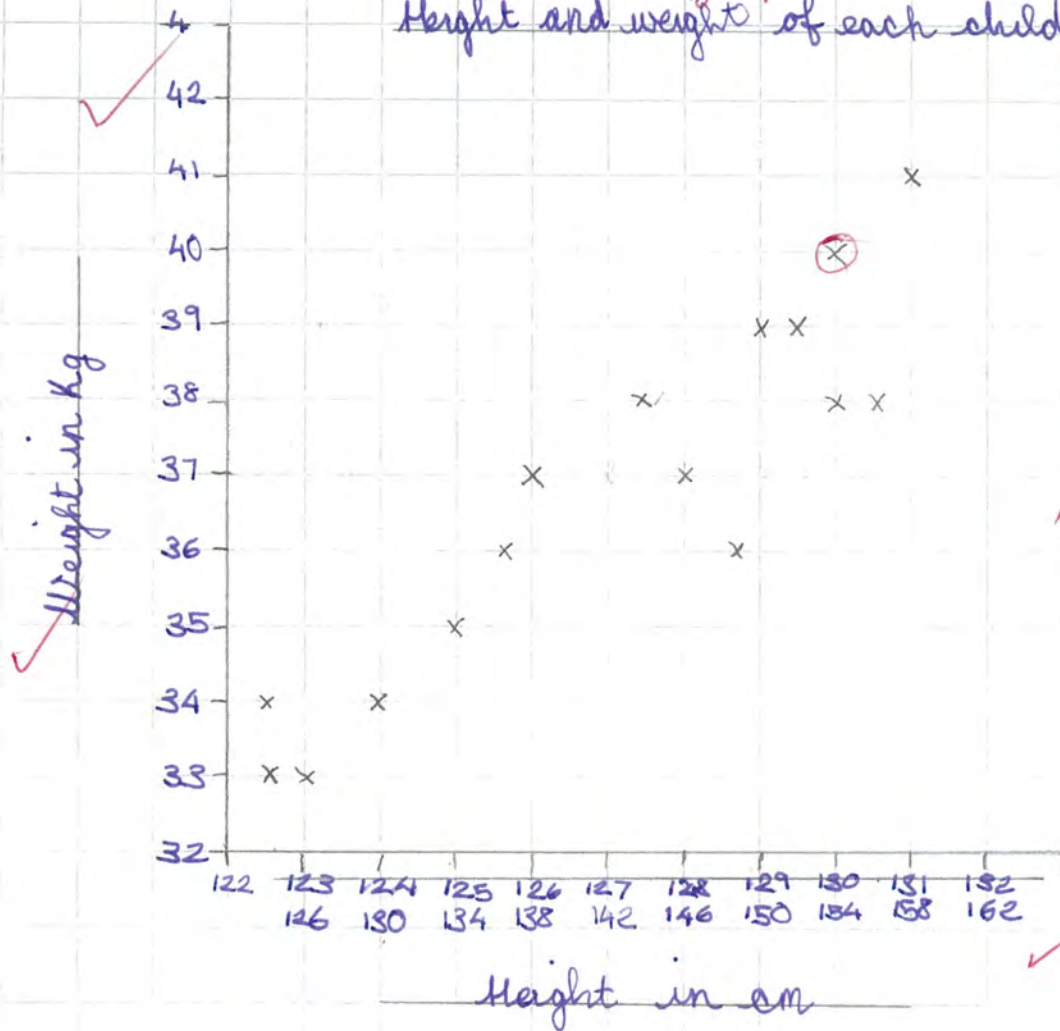
label the axis correctly.

heading

plot point accurately (across then up)

Numbers on the axis on the line.

A scatter graph to show
Height and weight of each child



Good use of your success criteria

on this dotch get a ...

Making 1

1. $0.23 + 0.77 = 1$ ✓
2. $0.72 + 0.28 = 1$ ✓
3. $0.84 + 0.16 = 1$ ✓
4. $0.55 + 0.45 = 1$ ✓
5. $0.14 + 0.86 = 1$ ✓
7. $7.83 > 7.5$ ✓
8. $7.31 < 7.8$ ✓
9. $7.75 < 8.8$ ✓
10. $7.05 < 8.05$ ✓
11. $0.08 < 8.35$ ✓
12. $0.07 < 7.38$ ✓
13. $8.08 > 7.03$ ✓

Well done for
making 1 using
2-place decimals
(i)

18.11.14

Comparing Numbers

1. $0.88 < 8.35$ ✓
2. $8.75 > 7.8$ ✓
3. $0.87 > 7.3$ ✓
4. $0.75 < 0.83$ ✓
5. $0.8 > 0.7$ ✓
6. $0.78 < 0.81$ ✓

Rounding decimals
to the nearest
tenth and whole
number

(Estimating and
approximating)

decimal	rounded to the nearest whole number	rounded to the nearest tenth
6.62	7	6.6
8.49	8	8.5
7.31	7	7.3
5.82	6	5.8
14.76	15	14.8
22.39	22	22.4
127.61	128	127.6
636.19	636	636.2
522.157	522	522.2
368.519	369	368.5
891.555	892	891.6
424.9632	425	425.0
329.9541	330	330.0



Ardderchog!
Rounding with 2-place decimals

19.11.14

$$4.0 \cdot 7 = £0.70 = 70p$$

What has happened? $5.8.31 = £8.31 = 831p$

$$8.1.4.7 + 0.1 \rightarrow 4.8$$

$$6.0.04 = £0.04 = 4p$$

$$2.7.41 - 0.02 \rightarrow 7.39$$

$$7.15.5 = £15.50 = 1550p$$

$$3.5.72 + 0.1 \rightarrow 5.82$$

$$4.3.675 - 0.003 \rightarrow 3.674$$

I found there is more than
one way to link your
learning.

$$5.1.818 + 0.01 \rightarrow 1.828$$

$$6.4.246 - 0.2 \rightarrow 4.046$$

$$7.9.197 + 0.01 \rightarrow 9.207$$

$$8.0.47 \times 10 \rightarrow 4.7$$

$$9.4,300 \div 1,000 \rightarrow 4.3$$

$$10.6.212 \times 100 \rightarrow 621.3$$

$$11.6320 \div 100 \rightarrow 63.2$$

Money calculator answers

$$1.0.5 = £0.50 = 50p$$

$$2.£66.4 = £6.40 = 640p$$

$$3.7.2 = £2.20 = 720p$$

21.11.14

Journeys

- To extract information from the time table.

1. 50 minutes

2. 25 minutes

3. 40 minutes

4. 21:05

5. 15:05

6. 16:35 X 11:52

1. 12:50

2. 10 kms

3. 12:15 $40 \text{ km} + 10 \text{ km} = 50 \text{ km}$
 $2\frac{1}{2} \text{ hours} \cdot 9:45 + 2\frac{1}{2} \text{ hours} = 12:15$

Calculating length
of journeys from
given times.

Train times

1. Liverpool 06:52 $\xrightarrow{8 \text{ mins}}$ 07:00 $\xrightarrow{3 \text{ hrs}}$ 10:00 $\xrightarrow{19 \text{ mins}}$ 10:19 = 3 hrs 27 mins Durham

2. Durham 18:37 $\xrightarrow{23 \text{ mins}}$ 19:00 $\xrightarrow{3 \text{ hrs}}$ 22:00 $\xrightarrow{7 \text{ mins}}$ 22:07 = 3 hrs 30 mins Liverpool

Ordering decimals (s)

Highest $\rightarrow$ smallest.

1. 17.78 m, 17.5 m, 7.75 m, 7.7 m, 7.557 ✓

2. 10.8 kg, 1.81 kg, 1.8 kg, 1.08 kg, 1.008 kg, 0.8 kg ✓

3. 6.61 l, 6.222 l, 6.22 l, 6.2 l, 6.02 l, 0.6 l ✓

4. 90.9 kg, 9.99 kg, 9.9 kg, 9.4 kg, 9.09 kg, 9.099 kg ✓

5. 12.7 l, 2.7 l, 1.27 l, 1.027 l, 0.127 l. ✓

Correctly ordered up to 3-decimal places ☺

25.11.14

Doubling - using what I know (H)

1. Double 6 = 12

Double 60 = 120

Double 0.6 = 1.2

Double 0.06 = 0.12 ✓

4. Double 9 = 18

Double 90 = 180

Double 0.9 = 1.8

Double 0.09 = 0.18 ✓

2. Double 7 = 14.

Double 70 = 140

Double 0.7 = 1.4 ✓

Double 0.07 = 0.14 ✓

Double 2 - place decimals

1. Double 3.24

6 0.4 0.08
6 48 ✓

3. Double 8 = 16

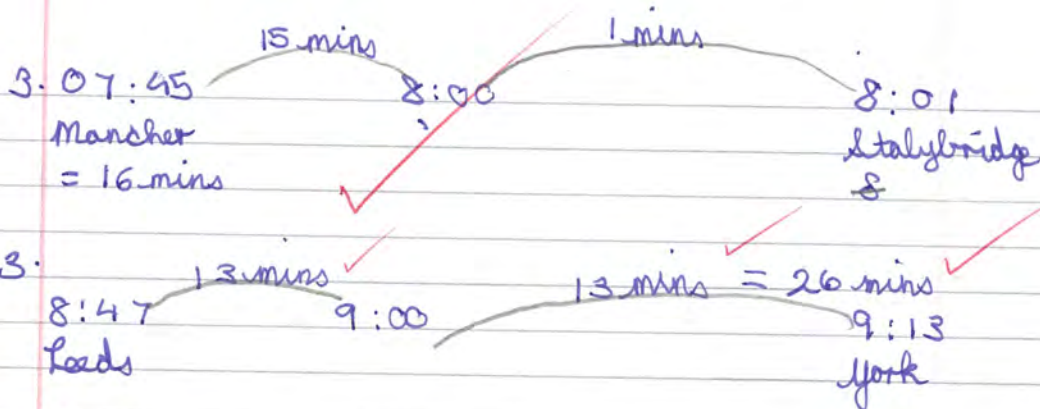
Double 80 = 160

Double 0.8 = 1.6 ✓

Double 0.08 = 0.16 ✓

2. Double 64.65

120 + 8 + 1.2 + 0.06
129.26 ✓



I didn't understand this at first but now I know how to extract information from a table

24.11.14

Comparing fractions and decimals

1. $\frac{6}{10} > 0.4$ $4. \frac{0.31}{10} > \frac{2}{10}$

$\frac{60}{100} > \frac{40}{100}$ ✓ $\frac{31}{100} > \frac{20}{100}$ ✓

2. $0.83 < \frac{9}{10}$ $5. \frac{6}{10} > 0.49$

$\frac{83}{100} < \frac{90}{100}$ ✓ $\frac{60}{100} > \frac{49}{100}$ ✓

3. $0.5 > \frac{3}{10}$

$\frac{50}{100} > \frac{30}{100}$ ✓



Da iain, you have compared fractions and decimals successfully. (u)

Dioloh yn fawn
rwy'n hoffi achos mae hwy.

3. Double 7.41

$$\begin{array}{r} 14 \\ 0.8 \\ 0.02 \\ \hline 14.82 \end{array}$$

4. Double 78.32

$$\begin{array}{r} 140 \\ 16 \\ 0.60 \\ 0.04 \\ \hline 156.64 \end{array}$$

5. Double 42.13

$$\begin{array}{r} 80 \\ 4 \\ 0.20 \\ 0.06 \\ \hline 84.26 \end{array}$$

Word Problems

1. Double £8.93

$$\begin{array}{r} £12 \\ 0.60 \\ 0.06 \\ \hline £12.66 \end{array}$$

Word Problems

1. Double 1.43 m

$$\begin{array}{r} 2 \\ 0.8 \\ 0.06 \\ \hline 2.86 \text{ m} \end{array}$$

2. Double 85.67 kg

$$\begin{array}{r} 160 \\ 10 \\ 1.20 \\ 0.14 \\ \hline 170.34 \text{ kg} \end{array}$$

Double £76.98

$$\begin{array}{r} £100 \\ 12 \\ 1.80 \\ 0.16 \\ \hline £153.96 \end{array}$$

I find doubling a lot easier. I will use the + sign next time.

(With) Bridging

1. Double 24.37

$$\begin{array}{r} 40 \\ 8 \\ 0.60 \\ 0.14 \\ \hline 48.74 \end{array}$$

* You can double 2-place decimal ☺

2. Double 64.63

$$\begin{array}{r} 120 \\ 8 \\ 1.20 \\ 0.06 \\ \hline 129.26 \end{array}$$

3. Double 34.48

$$\begin{array}{r} 60 \\ 8 \\ 0.80 \\ 0.16 \\ \hline 68.96 \end{array}$$

10.12.14

Finding fractions of dec

1. $\frac{1}{6}$ of $1.2 = 0.2$

$\uparrow \div 10$

$\frac{1}{6}$ of $12 = 2$

$\uparrow \div 10$

2. $\frac{1}{7}$ of $4.2 = 0.6$

$\uparrow \div 10$

$\frac{1}{7}$ of $42 = 6$

6.

7. $\frac{1}{8}$ of $0.64 = 0.08$

$\uparrow \div 100$

$\frac{1}{8}$ of $64 = 8$

3. $\frac{1}{8}$ of $3.2 = 0.4$

$\uparrow \div 10$

$\frac{1}{8}$ of $32 = 4$

8. $\frac{1}{9}$ of $0.18 = 0.02$

$\uparrow \div 100$

$\frac{1}{9}$ of $18 = 2$

4. $\frac{1}{8}$ of $6.4 = 0.8$

$\uparrow$

$\frac{1}{8}$ of $64 = 8$

9. $\frac{1}{6}$ of $7.2 = 1.2$

$\uparrow \div 10$

$\frac{1}{6}$ of $72 = 12$

5. $\frac{1}{5}$ of $0.35 = 0.07$

$\uparrow \div 100$

$\frac{1}{5}$ of $35 = 7$

10. $\frac{1}{11}$ of $13.2 = 1.2$

$\uparrow \div 10$

$\frac{1}{11}$ of $132 = 12$

Fraction of numbers/
decimals.

Using Place value
knowledge and
division facts from
multiplication tables.

The linking helped me to
understand.

$$11. \frac{4}{7} \text{ of } 4.2 = 2.4$$

$$\frac{4}{7} \text{ of } 42 = 6 \times 4 = 24$$

$$12. \frac{3}{6} \text{ of } 1.8 = 0.9$$

$$\frac{1}{6} \text{ of } 1.8 = 0.3 \times 3 = 0.9$$

$$13. \frac{2}{5} \text{ of } 0.45 = 1.8$$

$$\frac{1}{5} \text{ of } 0.45 = 0.09 \times 2 = 1.8$$

$$14. \frac{7}{8} \text{ of } 0.64 = 0.56$$

$$\frac{1}{8} \text{ of } 0.64 = 0.08 \times 7 = 0.56$$

$$15. \frac{2}{9} \text{ of } 0.36 = 0.06$$

$$\frac{1}{9} \text{ of } 0.36 = 0.03 \times 2 = 0.06$$

An excellent start but do not

put all of your workings out in one line separate them into rows

Double six will make sure I take this into consideration next time.

I'm happy for you to set out in your own way.

But, look careful 45 $\rightarrow$ 0.45 is 100 times smaller not 10 times.

(d) I'm sorry for the sloppy work.

15.12.14

Halving odd numbers using halving diamonds

$$1. \frac{1}{2} \text{ of } 3 = 1.5$$

$$8. \frac{1}{2} \text{ of } 3.26 = 2.63$$

(2 HP 1 + 0.03)

$$1. \frac{1}{2} \text{ of } 30 = 15$$

$$9. \frac{1}{2} \text{ of } 5.34 = 2.67$$

$$2. \frac{1}{2} \text{ of } 5 = 2.5$$

$$10. \frac{1}{2} \text{ of } 24.36 = 22.15$$

~~12.18~~

$$1. \frac{1}{2} \text{ of } 50 = 25$$

$$11. \frac{1}{2} \text{ of } 65.62 = 32.82$$

~~32.81~~

$$3. \frac{1}{2} \text{ of } 7 = 3.5$$

Well corrected :-

$$1. \frac{1}{2} \text{ of } 70 = 35$$

16.12.14

$$4. \frac{1}{2} \text{ of } 0.5 = 0.25$$

$$12. \frac{1}{2} \text{ of } 4.47 = 2.235$$

$$5. \frac{1}{2} \text{ of } 0.03 = 0.015$$

$$13. \frac{1}{2} \text{ of } 6.85 = 3.425$$

$$6. \frac{1}{2} \text{ of } 0.7 = 0.35$$

$$14. \frac{1}{2} \text{ of } 34.56 = 17.28$$

~~17.28~~

$$7. \frac{1}{2} \text{ of } 0.9 = 0.45$$

$$15. \frac{1}{2} \text{ of } 78.84 = 39.42$$

I would like to practice this skill to understand it better.

5.1.15

Measuring height

my height is 1.366 m
 1.40 m (rounded to nearest d.p.)

$1.366\text{ m} = 1\text{ m } 366\text{ cm} = 1366\text{ cm}$ 1.366 m (d)
2.d. place

$1.37\text{ m} = 1\text{ m } 37\text{ cm} = 137\text{ cm} = 1.37\text{ m}$

6.1.15

Using collected data

Name	Height m	Height cm	Height m/cm
Carys	1.45	145	1m 45 cm
Alexs	1.36	136	1m 36 cm
Connor	1.31	131	1m 31 cm
Daniel	1.35	135	1m 35 cm
Joshua	1.43	143	1m 43 cm

Carys's height is 1.45
to nearest 1/10 is 1.5
to nearest m is 1m

1m 45 cm 1.45 55 cm 2m

1.45, 1.43, 1.36, 1.35, 1.31

Calculating mean and range.

3. The tallest height is
The smallest height is

$+4\text{cm}$ $+10\text{cm}$
 1.31m 1.35m

The mean average
 $(1.45 + 1.36 + 1.31 + 1.35) \div 4$
 1.67m

9. 1.15

Mean and Range

4. $20 = 11 + 10 + 15 + 13 + 11 = 60$

$60 \div 5 = 30$

Range

$15 - 10 = 5$ ✓

1. $18 + 14 + 21 + 15 = 68$

$68 \div 4 = 17$

Range

$21 - 14 = 7$ ✓

5. $25 + 34 + 28 + 29 = 116$

$116 \div 4 = 29$ ✓

Range

$29 - 25 = 4$ ✓

2. $34 + 45 + 52 + 41 = 172$

$172 \div 4 = 43$ ✓

Range

$52 - 34 = 18$ ✓

6. $91 + 105 + 116 = 312$

$312 \div 3 = 104$ ✓

7. $9 + 9 + 12 = 30$ Average = 10

3. $26 + 21 + 35 + 63 + 30 = 175$

$175 \div 5 = 35$ ✓

Range

$63 - 21 = 42$ ✓

8. $10 + 14 + 23 + 11 = 58$ Average = 14.5

48 Average = 12

9. $11 + 9 + 10 = 30$ Average = 10

10. $8 + 11 + 9 + 8 = 36$ Average = 9



You can calculate
mean and range

19.1.15

Honey cakes - problem solving VE day NAC

Plan of action:

- Find the recipe.
- What ingredients I need.
- How much of each ingredient.
- Find how many oz in g. $25\text{ g} \approx 1\text{ oz}$
- Convert from oz into g then kg. $1\text{ oz} \approx 25\text{ g} \approx 0.25\text{ kg}$
- Times how much of each ingredient $\times 25$.

logical plan ☺

Push live on your challenge (NAC).

This plan of action will really support your success.

L5

How rough equivalents of imperial units in daily use

(see topic book)

Revision for Honey Cakes!

Using rounding to approximate

Round to the nearest multiple of 10

1. 28.35 $\approx$ ~~28~~ 30
2. 16.75 $\approx$ 20
3. 19.62 $\approx$ 20
4. 174.28 $\approx$ ~~18~~ 170 ✓

Round to the nearest whole number

1. 28.35 $\approx$ 28
2. 13.67 $\approx$ 14
3. 34.92 $\approx$ 35 ✓
4. 117.16 $\approx$ 117

Multiplying by multiples of 10

you have used if you know then you know ✓

1. $\overset{\times 10}{40} \times \overset{\times 10}{4} = 160$
2. $\overset{\times 10}{30} \times \overset{\times 10}{3} = 90$
3. 20 x 5 = 100
4. 100 x 8 = 800
5. 10 x 20 = 200
6. 50 x 30 = 1500
7. 90 x 20 = 1800
8. 100 x 20 = 2000
9. 100 x 36 = 3600
10. 200 x 24 = 4800 ✓

well done you have understand the lesson J.M ✓

Multiply by partitioning

$$28 \times 32$$

$\times$	30	2
20	600	40
8	240	16

$$840 + 56 = 896$$

$$147 \times 25$$

Peer Checked J.M C.P ✓

$\times$	20	5	
100	2000	500	
40	800	200	
7	140	35	

$$2,940 + 735 = 3,675$$

Formal multiplication method

$$\begin{array}{r} 28.35 \\ \times 6 \\ \hline \end{array}$$

$$169.170 \cdot 1$$

See me to discuss

$$\begin{array}{r} 28.35 \\ \times 6 \\ \hline 170.10 \\ \hline \end{array}$$

p81



History.

World War 2.

VE day - Honeycakes

Number and Measures

Honey cakes - Problem solving - VE day

$$1 \text{ oz} = 28.35 \text{ g}$$

Step 1.

Butter

$$4 \text{ oz of butter} \approx 28.35 \text{ g} \times 4 = 113.4 \text{ g} \approx 113 \text{ g approximated}$$

$$20 \text{ g} \approx \times 4 = 80 \text{ g}$$

$$8 \text{ g} \times 4 = 32 \text{ g} \approx 113.4 \text{ g} \approx (11.34 \text{ kg}) \quad ! \quad 1000 \text{ g} = 1 \text{ kg}$$

$$0.35 \text{ g} \approx \times 4 = 1.4 \text{ g}$$

$$= 0.113 \text{ kg.}$$

sugar

$$1 \text{ oz of sugar} \approx 28.35 \text{ g} \times 1 \approx 28.35 \times 28 \text{ g approximated} \approx (2.835 \text{ kg})$$

Flour

$$7 \text{ oz of flour} \approx 28.35 \text{ g} \times 7 \approx 198.45 \text{ g} \approx 195 \text{ g}$$

$$20 \text{ g} \times 7 \approx 140 \text{ g}$$

$$8 \text{ g} \times 7 \approx 56 \text{ g} \approx 198.45 \text{ g} \approx 19.845 \text{ kg}$$

$$0.35 \text{ g} \times 7 \approx 2.45$$

Step 3

Butter

x	100	10	3	0.4
20	2000	200	60	8
5	500	50	15	2

$$\approx 28.35 \text{ g}$$

Flour

x	100	90	8	0.4	0.05
20	2000	1800	160	8	1
5	500	450	40	2	0.25

$$\approx (4,801.25) = 4,861.25$$

sugar

x	20	8	0.3	0.05
20	400	160	6	1
5	100	40	1.5	0.25

$$\approx 708.3 \text{ g} \quad 0.5 + 0.25 = 0.75$$

I had fun doing the honey cakes problem because it was not too easy, I found it hard to calculate all the grid method

$$\begin{array}{r} 26 \cdot 1 \cdot 15 \\ \times 1 \div 8 \end{array}$$

$$5 \cdot \text{LCM of } 5 \text{ and } 8 = 20 \cdot 40$$

$$1. 219 \times 8$$

$$\begin{array}{r} 400 \ 20 \ 18 \\ = 438 \end{array}$$

$$\begin{array}{r} 800 \ 60 \ 16 \\ = 876 \end{array}$$

$$\begin{array}{r} 1600 \ 140 \ 12 \\ = 1,752 \end{array}$$

$$2. 992 \div 8$$

$$\begin{array}{r} 4 \cdot \\ 450 \ 45 \ 1 \\ = 496 \end{array}$$

$$\begin{array}{r} 200 \ 45 \ 3 \\ = 248 \end{array}$$

$$\begin{array}{r} 100 \ 20 \ 4 \\ = 124 \end{array}$$

Lowest common multiple (LCM)

$$1. \text{LCM of } 3 \text{ and } 2 = 6$$

$$2. \text{LCM of } 3 \text{ and } 4 = 12$$

$$3. \text{LCM of } 5 \text{ and } 2 = 10$$

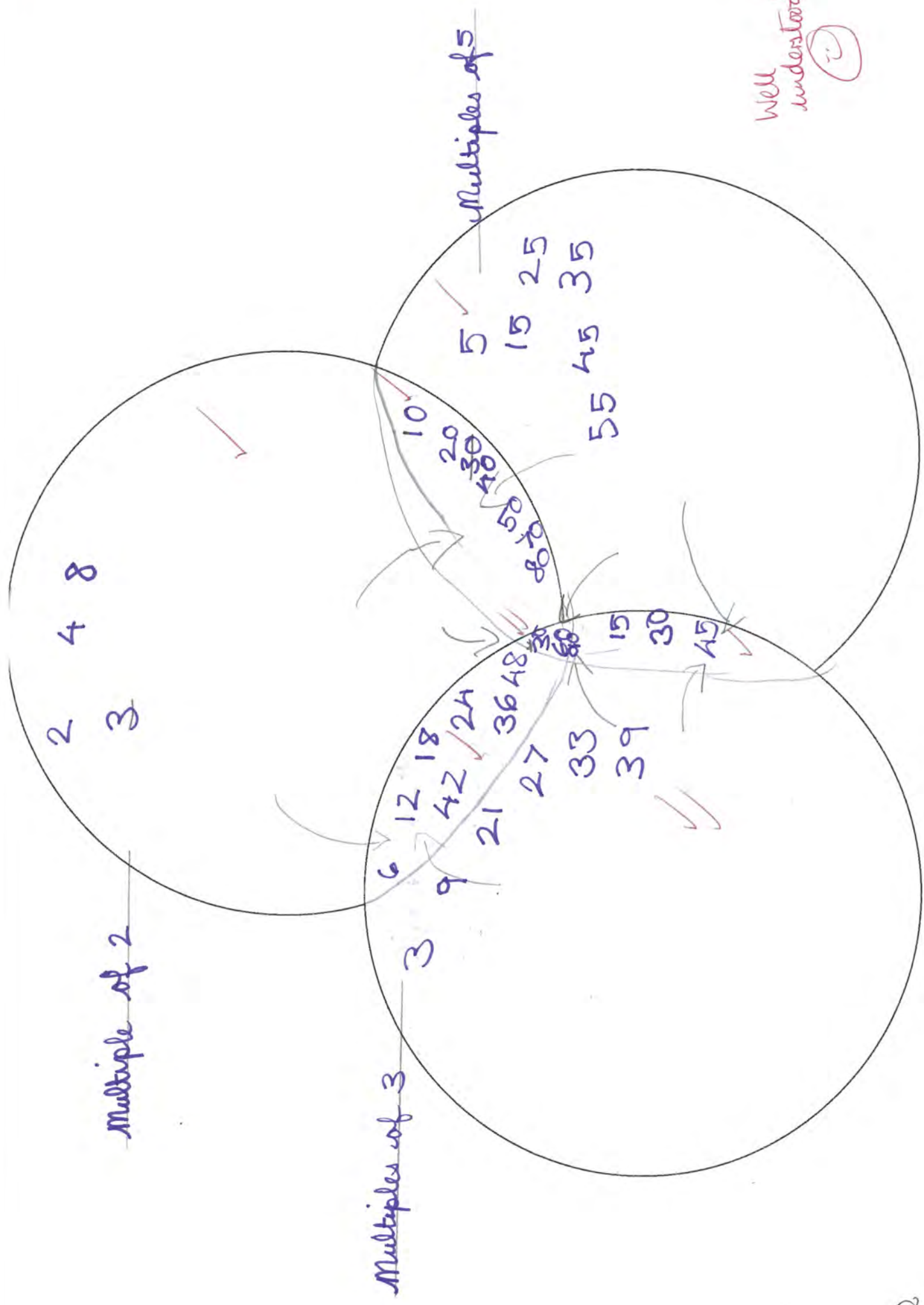
$$4. \text{LCM of } 6 \text{ and } 4 = 12$$

recognising common multiples.

Venn diagrams to
show multiples



You met the challenge of
three criteria for your Venn diagram
(11)



Well understood 😊

Mean and range.

1. 4, 7, 3, 4, 2

Mean = $4 + 7 + 3 + 4 + 2 = 20$ median = 11

$20 \div 5 = 4$ ✓

Range = $7 - 2 = 5$ ✓

6. 1, 3, 6, 11, 2.5, 4.5, 6

Mode = 6 ✓

2. 14, 6, 8, 8, 12, 8 = 56 mean

$56 \div 6 = 9.2$

Range = $14 - 6 = 8$ ✓

7. 13, 4, 12, 4, 3, 11, 6, 14, 4, 18, 4, 5

Median = 6

Mode = 4 ✓

3. 9, 7, 12, 18, 12, 5, 2, 2, 12

Mean = $79 \div 9$

Median = 12

Mode = 12 ✓

4. 25, 15, 11, 5, 25, 25, 6

Median = 5

Mode = 25 ✓

5, 6, 11, (15), 25, 25, 25
↓
median.

5. 21, 12, 4, 9, 18, 12, 1

Median = 9

Mode = 12 ✓

1, 4, 9, (12), 18, 21
↓
median.

Median

W.F. Remember to order the set of numbers before finding the middle number.

I checked through my work and realised I hadn't order first I make it a target next time. lololh!

10.

L5

Use mean of discrete data

Obtain information to solve a problem

L5

Describe situations using diagrams and words.

dots

L5

Construct and use simple formulas involving one or two operations

L6

Find and describe in words the rule for the next term or the n th term of a sequence where the rule is linear



21.1.15
Crosses and
dots

L5

instruct and use simple formulas
involving one or two operations

L6

Find and describe in words the rule
for the next term or the n th term
of a sequence where the rule is
linear

Excellent! Relationship found, expressed, proved and used, even in inverse form. Step 8 achieved. $\therefore \textcircled{2M} =$

Target: Create own questions to solve now.

Investigating maths

Crosses and dots

- Look at this pattern of dots to make crosses. Each side increases by one dot



- Investigate making more crosses by continuing the pattern

Draw clear diagrams

- Write down how many dots you use each time to make the different sized crosses

Organise your work and label your diagrams

- Collect your results in a table

- What patterns can you see in the numbers

The pattern for the size of each cross

The pattern for the number of dots

The relationship between the dots and crosses

Using what you have found out can you answer these questions:

1. How many dots are needed for 10 crosses?
2. How many straws are needed for 60 crosses?
3. How many crosses can you make from 37 dots?
4. How many crosses can you make from 117 dots?

21.1.15

Crosses and dots

1 size of cross
1 number of dots ✓

2 size of crosses
5 number of dots ✓

3 size of crosses
9 number of dots ✓

4 size of crosses
13 number of dots ✓

5 size of crosses
17 number of dots ✓

6 size of crosses
21 number of dots ✓

Size of crosses	number of dots	'lots of 4'
1	$1 \times 4 = 4 - 3 = 1$	+4
2	$2 \times 4 = 8 - 3 = 5$	+4
3	$3 \times 4 = 12 - 3 = 9$	+4
4	$4 \times 4 = 16 - 3 = 13$	+4 ✓
5	$5 \times 4 = 20 - 3 = 17$	+4
6	$6 \times 4 = 24 - 3 = 21$	+4

The crosses and on 1 more.

The dots + on 4 more each to

The relationship is size of cross $\times 4 - 3 =$ right amount of dots.

$$(C \times 4) - 3 = D$$

Cross size 10

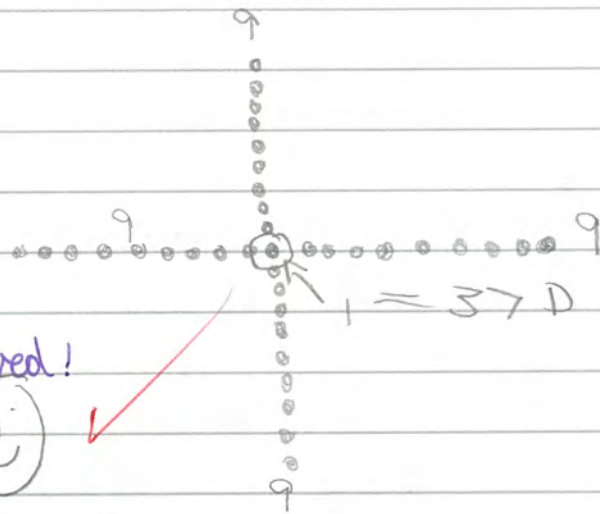
$$(C \times 4) - 3 = D$$

$$(10 \times 4) - 3 = D$$

$$40 - 3 = D$$

$$37 = D$$

Proved!



$$(10 \times 4) - 3 = 37 \text{ dots}$$

$$(60 \times 4) - 3 = 237 \text{ dots}$$

$$(37 + 3) \div 4 = 10 \text{ crosses}$$

$$(117 + 3) \div 4 = 30 \text{ crosses}$$

8-step framework



Name _____
TARGET- to achieve step 8

SELF ASSESSMENT

Using the 8-step framework to carry out my investigational work.

STEP 1

Read the information,
underline the key words.



STEP 2

Have a go!
Organise your work clearly.



STEP 3

Check your results.



STEP 4

Record your results in a table.



STEP 5

Look for patterns in the numbers.



STEP 6

Look for the relationship and
Describe it using words and letters.



STEP 7

Prove it!
Use the relationship you have found
to work out an unknown answer.
Then draw a diagram to show it is correct.



STEP 8

Use it!
Show how to use the relationship to
work out unknown answers, including
it in inverse.



Step I achieved was _____ Date _____

Next time I want to _____ Signed _____

27.1.15

Mental division warm up

$$1. 19 \div 6 = 3 \text{ r } 1 = 3 \frac{1}{6} \checkmark$$

$$2. 27 \div 4 = 6 \text{ r } 3 = 6 \frac{3}{4} \checkmark$$

$$3. 30 \div 8 = 6 \text{ r } 2 = 6 \frac{2}{8} \checkmark$$

$$4. 66 \div 9 = 7 \text{ r } 3 = 7 \frac{3}{9} \checkmark$$

$$5. 38 \div 5 = 7 \text{ r } 3 = 7 \frac{3}{5} \checkmark$$

$$6. 5 \frac{3}{8} = 43 \div 8 = \checkmark \quad \checkmark \quad \text{m}$$

$$7. \frac{97}{9} = 123 \div 9 \checkmark \quad \checkmark \quad \text{m}$$



You challenged yourself with fractions and wrote a possible sum. (@ 6, 7)

(m)

→ WF

To convert between mixed numbers and improper fractions.

Comparing fractions

1. $\frac{1}{2} > \frac{1}{4}$



2. $\frac{1}{6} < \frac{1}{3}$



3. $\frac{1}{8} > \frac{1}{12}$



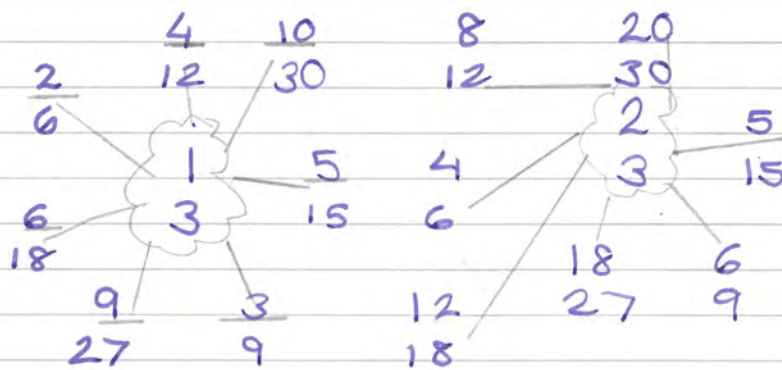
4. $\frac{1}{10} < \frac{1}{5}$

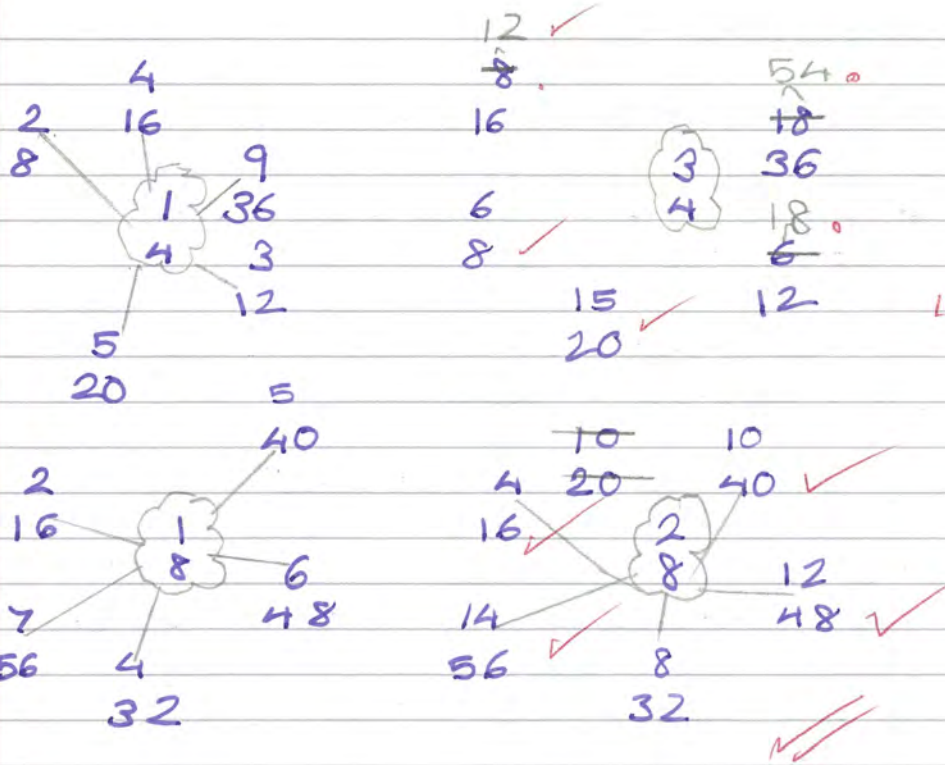


5. $\frac{1}{4} > \frac{1}{16}$



Equivalent fractions





Challenged to equivalent fractions in more than a singular unitary fraction

$$\frac{1}{4} = \frac{3}{12} = \frac{9}{36}$$

$$\frac{3}{4} = \frac{9}{12} = \frac{27}{36}$$

→ WF To add and subtract fractions

$$\frac{3}{7} + \frac{9}{21} = \frac{18}{21}$$

$$\frac{16}{20} - \frac{1}{5} = \frac{12}{20}$$

$$\frac{9}{21}$$

$$- \frac{4}{20}$$

Challenge met.

29.1.15

Fractions of numbers - which is more?

1. $\frac{2}{3}$ of £48.18 or $\frac{1}{6}$ of £48.18

$$3 = £16.06 \times 2 = £32.02 \quad 6 = £8.03$$

$$20 \quad 12 \quad 0.12$$

$$£32.02$$

$$(2 \times 6p = 12p)$$

$$£32.12$$

I would prefer $\frac{2}{3}$ of £48.18

2. $\frac{3}{4}$ of £56.28 or $\frac{2}{7}$ of £56.28

$$4 = £14.07 \times 3$$

$$7 = £8.04 \times 2 = £16.08$$

$$30 \quad 12 \quad 0.21$$

$$= £42.21$$

I would prefer $\frac{3}{4}$ of £56.28

Reducing Fractions

$$1. \frac{2}{4} = \frac{1}{2}$$

$$5. \frac{5}{15} = \frac{1}{3}$$

$$2. \frac{18}{20} = \frac{9}{10}$$

$$6. \frac{14}{24} = \frac{7}{12}$$

$$3. \frac{3}{30} = \frac{1}{10}$$

$$7. \frac{4}{40} = \frac{1}{10}$$

$$4. \frac{10}{45} = \frac{2}{9}$$

$$8. \frac{2}{6} = \frac{1}{3}$$

Identifying factors
of a given number
using knowledge of
multiplication pairs.

$$9. \frac{45}{50} = \frac{9}{10} \checkmark$$

$$10. \frac{35}{40} = \frac{7}{8} \checkmark$$

$$11. \frac{4}{36} = \frac{1}{9} \checkmark$$

$$12. \frac{44}{48} = \frac{11}{12} \checkmark$$

$$13. \frac{6}{14} = \frac{3}{7} \checkmark$$

$$14. \frac{4}{32} = \frac{1}{8} \checkmark$$

$$15. \frac{18}{20} = \frac{9}{10} \checkmark$$

$$16. \frac{35}{50} = \frac{7}{10} \checkmark$$

$$17. \frac{2}{14} = \frac{1}{7} \checkmark$$

$$18. \frac{12}{28} = \frac{3}{7} \checkmark$$

$$19. \frac{10}{16} = \frac{5}{8} \checkmark$$

$$20. \frac{6}{9} = \frac{2}{3} \checkmark$$

For

$$\begin{array}{l} 1 \times 24 \quad 1 \quad 8 \quad 3 \\ 2 \times 12 \quad 24 \quad 4 \quad 24 \\ 4 \times 6 \quad 12 \quad 6 \\ 8 \times 3 \quad 2 \end{array}$$

$$\begin{array}{l} 1 \times 36 \quad 36 \\ 2 \times 18 \quad 18 \quad 36 \\ 4 \times 9 \quad 2 \quad 4 \\ 6 \times 6 \quad 6 \quad 9 \end{array}$$

→ W.F To identify common factors.

Challenge met 😊

Q. What are common factors of 48 and 16?

$$\begin{array}{l} 1 \times 48 \quad 2 \times 24 \\ 4 \times 12 \quad 8 \times 6 \\ 16 \times 3 \end{array} \quad \begin{array}{l} 1 \times 16 \quad 2 \times 8 \\ 4 \times 4 \end{array}$$

$$= 1, 2, 4, 8, 16 \checkmark$$

Target: Converting between mixed numbers and improper fractions. (Y7)

e.g. $\frac{50}{7} = 7 \frac{1}{7}$ (because $50 \div 7 = 7 \text{ r } 1 = 7 \frac{1}{7}$)

$$\frac{34}{8} = 4 \text{ r } 2 = 4 \frac{2}{8} \quad \checkmark$$

$$\frac{66}{9} = 8 \text{ r } 3 = 8 \frac{3}{9} \quad 7 \text{ r } 4 = 7 \frac{4}{9} \quad (9 \times 8 = 72) \quad \checkmark$$

$$\frac{41}{6} = 6 \text{ r } 5 = 6 \frac{5}{6} \quad \checkmark$$

$$7 \times 9 = 63$$

$$\frac{21}{4} = 5 \text{ r } 1 = 5 \frac{1}{4} \quad \checkmark$$

(d) to explain b.

$$b. \quad 3 \frac{1}{9} = \frac{28}{9} \quad \checkmark$$

$$5 \frac{2}{7} = \frac{37}{7} \quad \checkmark$$

$$8 \frac{3}{5} = \frac{43}{5} \quad \checkmark$$

$$4 \frac{2}{6} = \frac{26}{6} \quad \checkmark$$

$$6 \frac{6}{8} = \frac{54}{8} \quad \checkmark$$



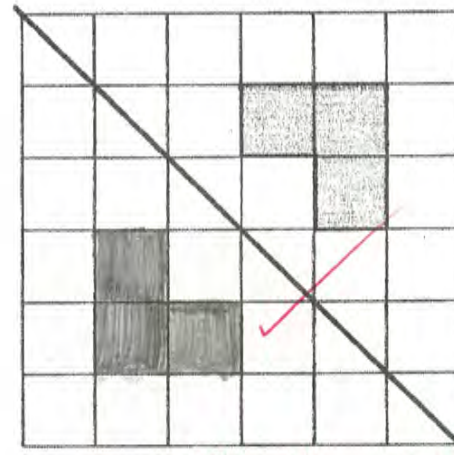
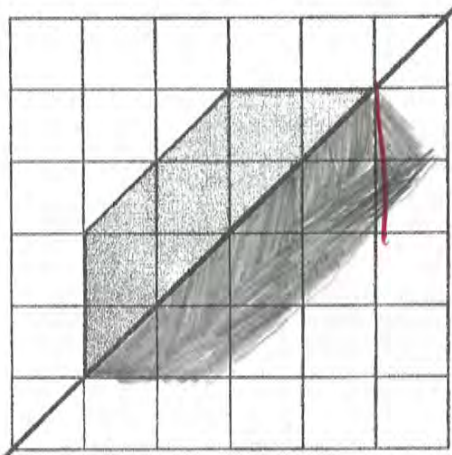
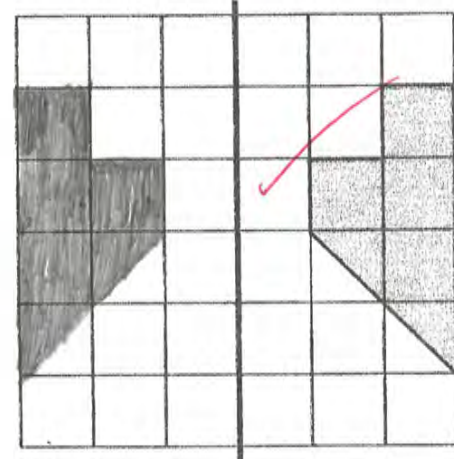
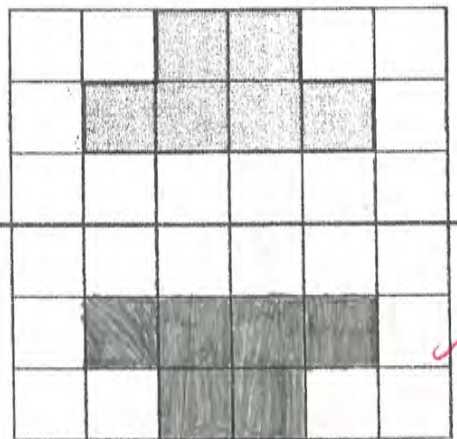
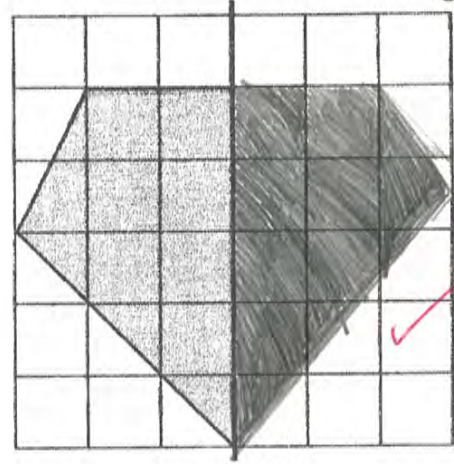
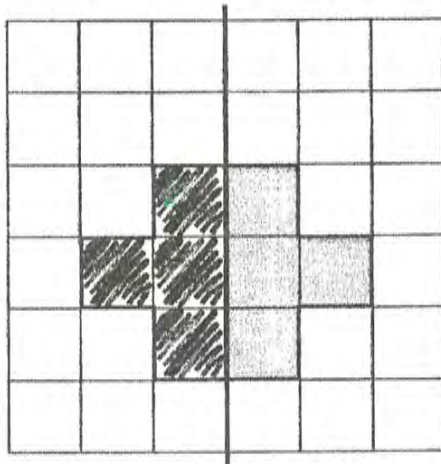
30.11.15 Brilliant - lovely to see this book. you are working very hard
MRS Bengough

Mirror, mirror

30.1.15

- Draw the **reflection** on the other side of the mirror line.

One has been done for you.



- On squared paper, draw three shapes and their reflections.

Good work.

Almond

Teachers' note The children can use a mirror placed along the mirror line to check the reflection. Remind them that each point is reflected to a point the same distance from the mirror line on the other side, and that reflected lines will always be parallel to the original lines.

L4
Reflect simple shapes in a mirror line

Geometry
Area and Space

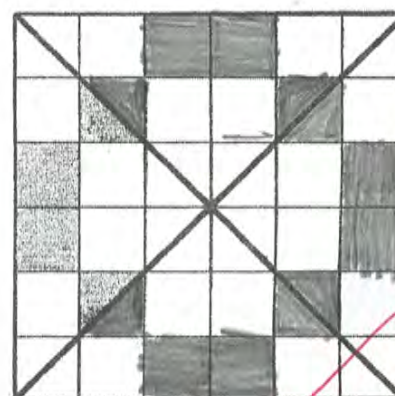
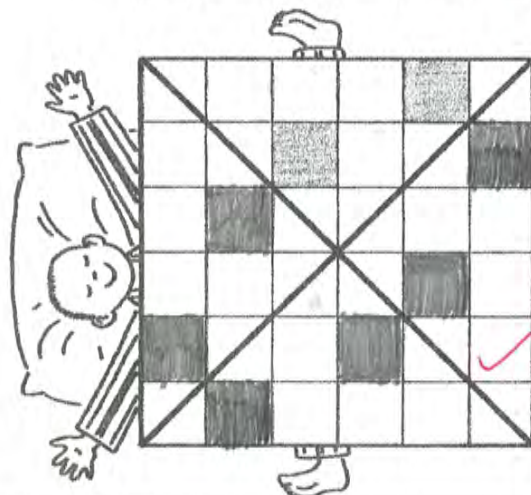
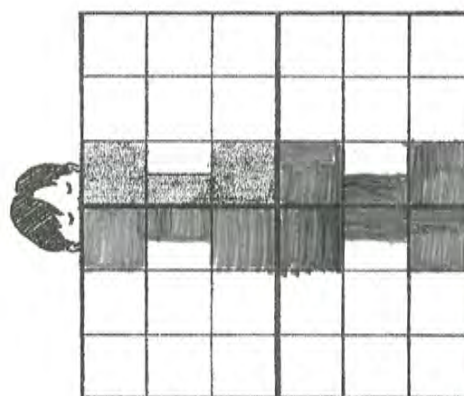
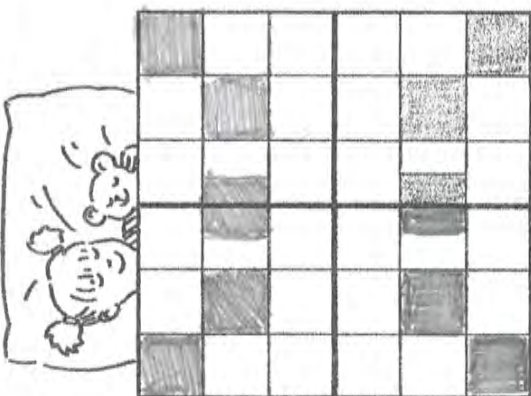
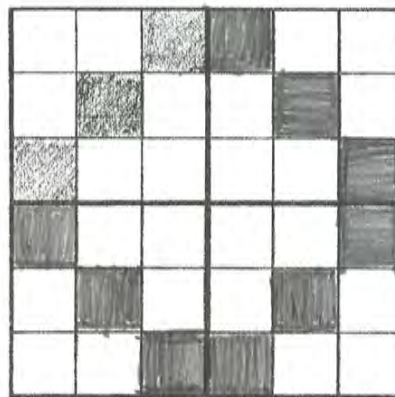
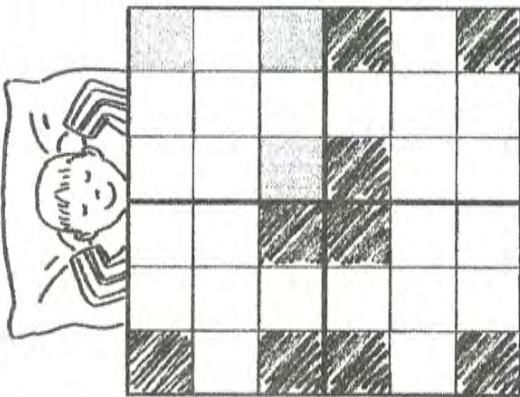
Reflecting in
2-lines of
symmetry.

Patchwork quilts

30.1.15

- Complete each pattern so that it is symmetrical about both lines of symmetry.

One has been done for you.



Great work.

Percentage of a number.

Cong, you clearly see the challenges you great thinking of you

Disch you saw I am you both have seen

£ 3.2.15

Percentages of a number

1. 24.1. of £500 = £225

20.1. of £500 = £100 + £225

4.1. of £500 = £25

$50 \times 2 = 100 = £120$

$5 \times 4 = 20$

2. 38.1. of 400 ml = 170 ml

30.1. of 400 ml = 120 ml + 170 ml

8.1. of 400 ml = 50 ml

$40 \times 3 = 120 = 152 ml$

$4 \times 8 = 32$

3. 41.1. of 200g = 82g

40.1. of 200g = 80g + 82g

1.1. of 200g = 2g

4. 63.1. of £300 = £280

60.1. of £300 = £180 + £280

3.1. of £300 = £100

$30 \times 6 = 180$

$3 \times 3 = 9 = £189$

(d)

5. 52.1. of 500 ml = 260 ml

50.1. of 500 ml = 250 ml + 260 ml

2.1. of 500 ml = 10 ml

6. 28.1. of 600g

20.1. of 600g = 120g

$$\begin{aligned} 8\% \text{ of } 600\text{g} &= 48\text{g} \\ 48\text{g} + 120\text{g} &= 168\text{g} \end{aligned}$$

L5

Calculate percentage parts of quantities and measurements

You have corrected well

Good girl
(10)

Remember to show your working out, to avoid careless mistakes.

W.F.

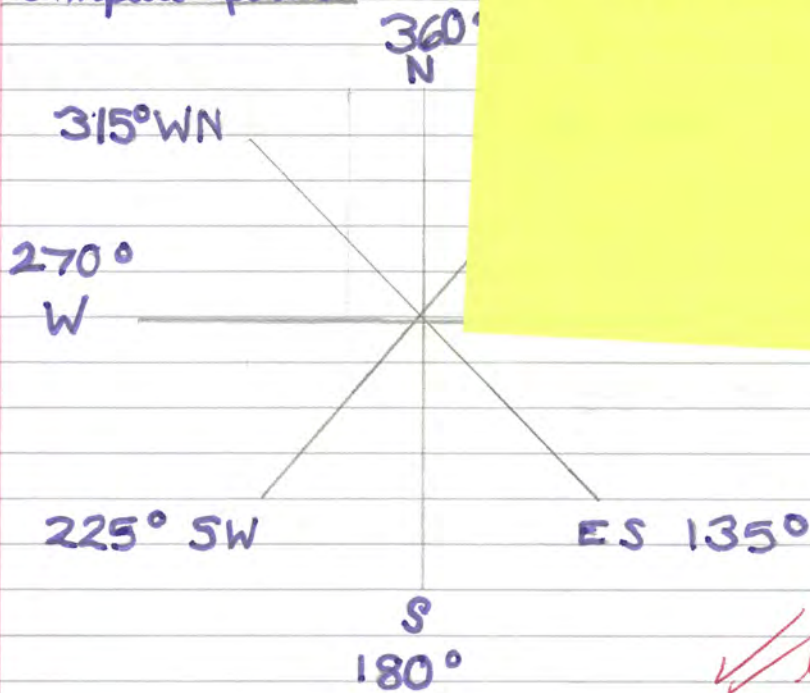
To use percentages in real-life problems such as 'sale prices'.

Diolch miss, I understood this more after we discussed I'll check my work next time! ☺

Name _____		Power Pods	
Level <u>B</u>		Fraction/decimal/percentage given	
	Time	Penalties	Final time
1 st attempt.	1 min 19 secs	1	1 min 24 secs
Target	1 min	0	
2 nd attempt	50 secs	0	50 secs
Target	40 secs	0	

6.2.15

compass points



Using grid references
to specify a
location.

Grid references Mod 7 bk 1 p 43

✓ You have
linked angles
and compass
directions. ☺

1. Eastings: 23, 24, 25 ✓ Bridge: 234 124 ✓
2. Northings: 12, 13, 14 ✓ Building: 238 129 ✓
Green: 23, 12 ✓ School: 232 125 ✓
3. Red: 24, 13 ✓ Pond: 233 129 ✓
4. Blue: 23, 13 ✓ Post office: 233² 127 ✓
5. Yellow: 24, 12 ✓ Telephone box: 236 122 ✓
Picnic site: 239 123 ✓

You have begun to understand 6-figure grid referencing

→ WP - plotting using 6-figure grid referencing.
I will take this into consideration

9. 2.15

using what I know to compare

1. $\frac{1}{4} > 20\% < 0.5$ ✓

2. $\frac{5}{10} < \frac{3}{4} < \frac{0.75}{100}$ ✓

3. $\frac{1}{3} < 60\% > 0.4$ ✓

4. $\frac{7}{10} > 20\% < 0.85$ ✓

5. $80\% > 0.24 > \frac{1}{10}$ ✓

6. $\frac{2}{5} < 45\% > 0.365$ ✓

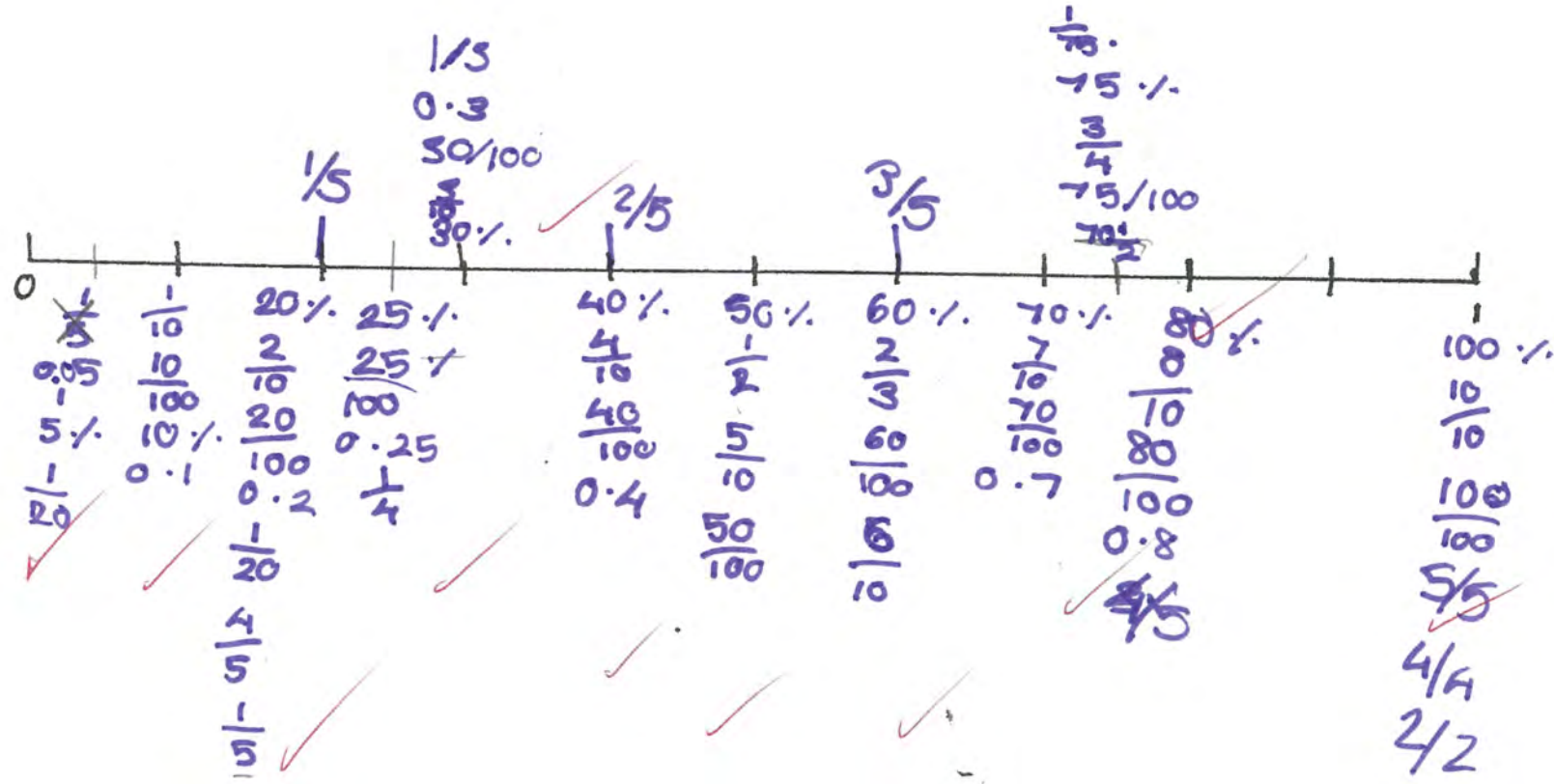
7. $\frac{3}{5} > 0.22 < \frac{43}{100}$ ✓

8. $82\% > \frac{3}{8} < 0.825$ ✓

Completing number
line with known
equivalences.

Ordering a set of
mixed fractions,
decimals and
percentages -
knowledge and
use of equivalences.

89.



Ordering GDP's in order

10.2.15

Descending

1. 0.66, 55%, $\frac{5}{10}$, 0.2, 10%, 3. 100%, 1, 0.66, 25%, $\frac{1}{4}$, 0.2

2. 4, 6, 1, 35%, 1
5 10 2 4

Ascending

1. 0.33, 1, 35%, 5, 100%
3 5

2. 1, 25%, 1, 75%, 0.9
4 2

Finding Percentages

1. 24% of £125 = 30

20% of £125 = £12.50 $\times 2$ = £25 = 30 ✓

4% of £125 = 5

2. 37% of 240 =

30% of 240 = 72

7% of 240 = ~~14.28~~ 16.8

} + = 88.8 ✓

(C)

3. 47% of 675 =

40% of 675 = 67.5 $\times 4$ = 490

7% of 675 = 47.25

} = 537.25 ✓

(C)

Percentage of
numbers.



TASK 1B- TIERS

Overall crowd capacity is **74 500**.

The ground is split into **three tiers** but these are *not distributed equally*.

Work out how many people are in each of the tiers.

How many people are there in the lower tier if it is **40%** of the crowd capacity?

$$\begin{array}{r}
 74,500 \\
 \underline{28,000} \quad 400 \quad 50 \\
 46,500
 \end{array}
 \quad
 \begin{array}{r}
 74,500 \\
 \underline{28,000} \quad 400 \quad 50 \\
 46,500
 \end{array}
 \quad
 \begin{array}{r}
 74,500 \\
 \underline{28,000} \quad 400 \quad 50 \\
 46,500
 \end{array}
 \quad
 \begin{array}{r}
 74,500 \\
 \underline{28,000} \quad 400 \quad 50 \\
 46,500
 \end{array}$$

$74,500 \times 0.4 = 29,800$
 $29,800$ ✓

How many people are there in the middle tier if it is **1/5** of the crowd capacity?

$$\begin{array}{r}
 1/5 = 20\% \\
 74,500 \\
 \underline{14,900} \quad 000 \quad 100 \\
 59,600
 \end{array}
 \quad
 \begin{array}{r}
 74,500 \\
 \underline{14,900} \quad 000 \quad 100 \\
 59,600
 \end{array}$$

$74,500 \times 0.2 = 14,900$
 $14,900$ ✓

How many people are there in the top tier if it is **25%** of the crowd capacity?

$$\begin{array}{r}
 25\% = 1/4 \\
 74,500 \\
 \underline{18,625} \quad 000 \quad 250 \\
 55,875
 \end{array}
 \quad
 \begin{array}{r}
 74,500 \\
 \underline{18,625} \quad 000 \quad 250 \\
 55,875
 \end{array}$$

$74,500 \times 0.25 = 18,625$
 $18,625$ ✓

What is the remaining **percentage** of people who are linked to hospitality?

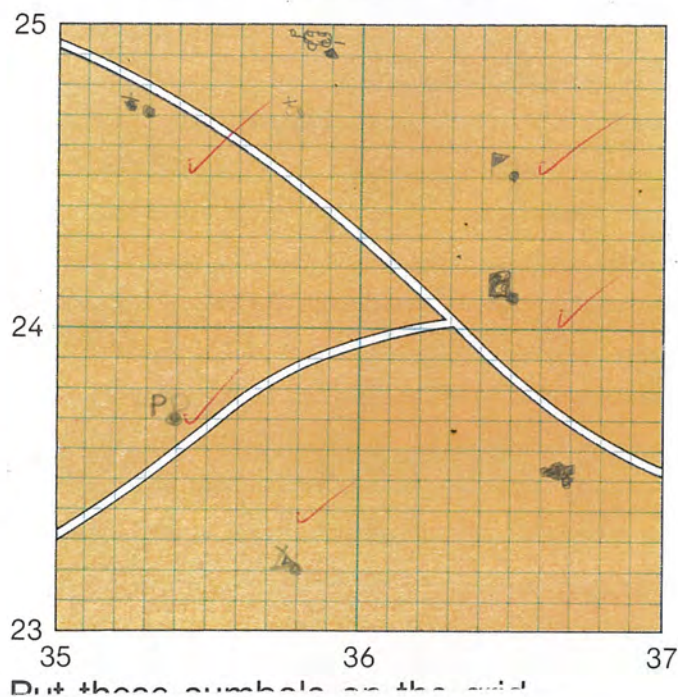
$$\begin{array}{r}
 15\% = 25\% + 20\% + 40\% = 85\% \\
 \therefore 15\%
 \end{array}$$

15% ✓

What method would you use to calculate this percentage? I'd use
10% of the number and add 5%.

12.2.15

Plotting site figure references



Post office 23 354 237

Camp site 358 232

Tourist information 365 241

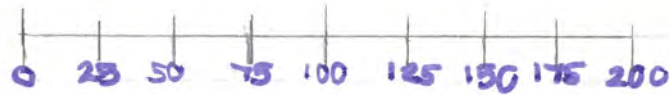
Church spire 353 247

Bus station 368 235

Golf course 365 245

Caravan site 359 249

Scale



metres (m)



$$1 \text{ cm} = 25 \text{ m} = 150$$

$$\text{_____} = 250 \text{ m}$$

$$\text{_____} = 75 \text{ m}$$

$$\text{_____} = 125 \text{ m}$$

$$12 \text{ cm} \times 25 = 300 \text{ m}$$

Using scale on maps

1. Church tower $\rightarrow$ church spire = 200 m $\checkmark$ = 8 cm
2. Bridge $\rightarrow$ Hilt Hills farm = 200 m $\checkmark$ = 8 cm
3. Pond Church spire = 75 m $\checkmark$ = 3 cm
4. Post office & bridge = 100 m $\checkmark$ = 4 cm
5. Church with a spire = 257 631 $\checkmark$
6. Post office = 255 633 $\checkmark$

7. Battle ground = 250 624 ✓

8. Church tower = 248 626 ✓✓

You are able to plot six-figure references and have begun to use scale.

→
w.f

Use different scales
Apply to geography work.

Using a map scale
to calculate
distance.

2. $2 \cdot \frac{1}{50}$ ✓

3. Motorbike = $4 \cdot \frac{1}{50}$ ✓

Walked = $26 \cdot \frac{1}{50}$ ✓

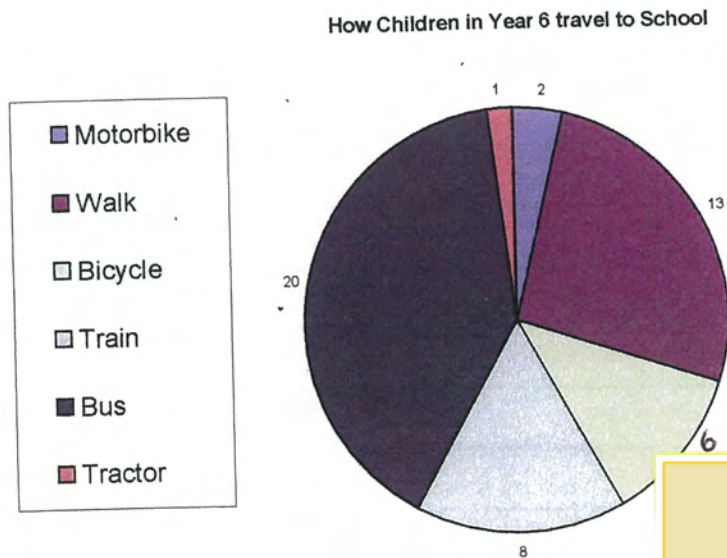
Train = $16 \cdot \frac{1}{50}$ ✓

Bus = $40 \cdot \frac{1}{50}$ ✓

4. Bus = $\frac{2}{5}$ ✓

Walked = $\frac{13}{50}$ ✓

5. Do not walk = $37 = \frac{74}{100} = 74 \cdot \frac{1}{100}$ ✓



Interpreting information represented in a pie chart

