

$$\text{iii)} \frac{3}{(2x+1)} = \frac{4}{(x-1)}$$

$$\text{iv)} (x+2)^2 = (x+3)(x+5)$$

$$\text{3i)} \overset{+}{x^2} + \overset{-}{9x} + \overset{+}{14} = 0$$

A B C

7 and 2

$$(x+7)(x+2)$$

$$\boxed{x = -7}$$

$$\boxed{x = -2}$$

$$\text{ii)} x^2 - 7x + 10 = 0$$

$$(x-5)(x-2)$$

$$\boxed{x = 5}$$

$$\boxed{x = 2}$$

$$\text{iii)} x^2 + 8x - 20 = 0$$

$$(x+10)(x-2)$$

$$\boxed{x = -10}$$

$$\boxed{x = 2}$$

$$\text{iv)} x^2 - 49 = 0$$

$$(x-7)(x+7) = 0$$

$$\boxed{x = 7}$$

$$\boxed{x = -7}$$

$$\text{v)} 2x^2 - 3x - 20 = 0$$

$$\overset{+}{17x^2} + \overset{-}{5x} + \overset{+}{14} = 0$$

A B C

$$\text{4i)} 17x^2 = -5x + 14$$

$$17x^2 + 5x - 14 = 0$$

A B C

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a} = \frac{-5x \pm \sqrt{5x^2 - 4(17x^2)(14)}}{2(17x^2)} = \frac{-12.28}{2.290}$$

$$5) \quad \begin{aligned} 6x + 5y &= 35 & \textcircled{1} \quad \times 4 \\ 7x - 4y &= 31 & \textcircled{2} \quad \times 5 \end{aligned}$$

$$\begin{aligned} 24x + 20y &= 140 \\ 35x - 20y &= 155 \\ \hline 59x &= 295 \end{aligned}$$

$$\frac{295}{59} = 5$$

$$\boxed{x = 5}$$

$$6x(30) + 5y = 35 \quad 35 - 30 = 5$$

$$5y = 5 \quad \boxed{y = 1}$$

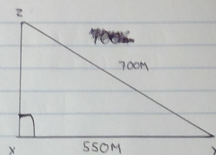
$$6) \quad 10p^3q^2 - 5p^2q + 15p^4q$$

$$\boxed{5p^2q(2p^2 - 1 + 3p^2)}$$

$$ii) \quad 2x^2y - 4xy^2$$

$$2xy(x - 2y)$$

7)



$$\cos^{-1} \left(\frac{\text{Adjacent}}{\text{Hypotenuse}} \right) = \frac{550}{700} = \frac{11}{14} = 0.7857$$

$$700^2 = \text{Height of building}^2 + \text{Hypotenuse}^2$$

$$700^2 = \text{ " }^2 + 550^2$$

$$700^2 - 550^2 = 11^2$$

$$\sqrt{700^2 - 550^2} = 433$$

$$\boxed{433m}$$

$$ii) \quad \cos^{-1} \left(\frac{550}{700} \right) = \boxed{38.21^\circ}$$

1i) $x^6 \times x^8 \times x^2 \times x$

$6+8=14$ $14+2=16+1=17$

x^{17}

ii) $(2x^2) \times x \times 3x^3$

iii) $\frac{x^2 \times x^{10} \times x}{x^2}$

$2+10+1=13$

$\frac{x^{13}}{x^2}$

iv) $2\sqrt{x} \times 3\sqrt{x}$

v) $1 = x$

2i) $7x-1 = 5x+4$

$-5x$

$-5x$

$2x-1=4$

$+1$

$+1$

$2x=5$

$x = 2.5$ or $\frac{5}{2}$

Answer not crossed out

ii) $10(3x+2) = 7(-2x-1)$

$10(3x+2) = 30x+20$

$7(-2x-1) = -14x-7$

$30x+20 = -14x-7$

$+14x$

$+14x$

$44x+20 = -7$

-20 $44x = -27$ -20

$44x = -27$

$x = \frac{-27}{44}$