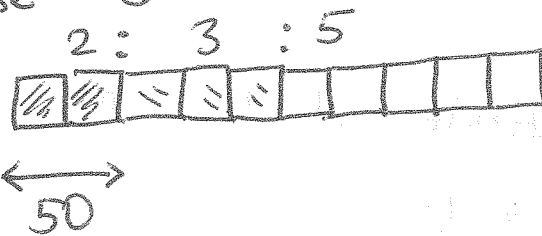


# M7 = 5 days to go!

Three angles are in the ratio 2 : 3 : 5  
 The smallest angle is  $50^\circ$

Work out the sizes of the other two angles

Use Blocks



Each block = 25

  $3 \times 25 = 75$

  $5 \times 25 = 125$

75 and 125  
 (2)

5. Work out, giving each answer in standard form.



(a)

$(4 \times 10^5) \times (2 \times 10^4)$

$4 \times 2 \times 10^5 \times 10^4$

$8 \times 10^9$

$a \times 10^n$   
 must be between 1 and 10

$8 \times 10^9$

(2)

(b)

$(5 \times 10^6) \times (7 \times 10^8)$

$5 \times 7 \quad 10^6 \times 10^8$   
 $35 \times 10^{14}$

$3.5 \times 10 \times 10^{14}$

$3.5 \times 10^{15}$

(2)

6. David buys 2 DVDs and 2 CDs in a shop and in total they cost £18.  
Ellie buys 3 DVDs and 2 CDs in the same shop and they cost £22.

Form two equations and solve to find the cost of each DVD and each CD.

$$\begin{array}{r} 2d + 2c = 18 \\ 3d + 2c = 22 \end{array}$$

$$\begin{array}{r} 3d + 2c = 22 \\ \underline{2d + 2c = 18} \\ d = 4 \end{array}$$

then substitute  $d=4$  into

$$2d + 2c = 18$$

$$8 + 2c = 18$$

$$2c = 10 \quad \text{DVD} = \text{£} \dots 4 \dots \text{CD} = \text{£} \dots 5 \dots \quad (4)$$

$$c = 5$$

Check these work

7. Solve the simultaneous equations

$$2x + 4y = 26$$

$$3x - y = 4$$

Do not use trial and improvement

Get the y numbers the same

$$\begin{array}{r} 2x + 4y = 26 \\ 3x - y = 4 \quad (\times 4) \end{array}$$

$$\begin{array}{r} 2x + 4y = 26 \\ \underline{12x - 4y = 16} \\ 14x = 42 \\ x = 3 \end{array}$$

Substitute in  $x=3$

$$2x + 4y = 26$$

$$6 + 4y = 26$$

$$4y = 20$$

$$y = 5$$

$$x = \dots 3 \dots y = \dots 5 \dots$$

Don't forget to check! <sup>(3)</sup>