

February 17th

5-a-day

Numeracy

83 - 54

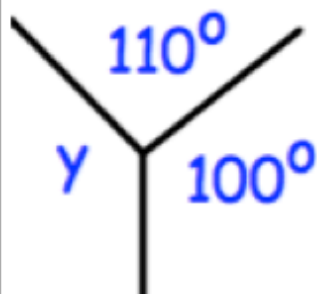
$$\begin{array}{r} 783 \\ - 54 \\ \hline 729 \end{array}$$

Menu	
Burger	90p
Egg	70p
Chips	80p
Mash	65p
Drink	55p

$$\begin{array}{r} \times 3 \quad \pounds 2.70 \\ 0.55 \\ \hline 3.25 \end{array}$$

Geoff buys 3 burgers and 1 drink.  
How much will he have to pay?

$$\pounds 3.25$$



$$\begin{array}{r} 110 \\ + 100 \\ \hline 210 \end{array}$$

$$\begin{array}{r} 360 \\ - 210 \\ \hline 150^\circ \end{array}$$

Mary thinks of a number.

It is a square number.  
It is also a cube number.

What could it be?

$$1 \quad 64 \\ \text{etc.}$$

David and John visit their friend Natalie.

David visits Natalie every 3 days.  
John visits every 4 days.

Over 24 days, how many times will they both visit on the same day?

3 6 9 (12) 15 18 21  
4 (8) 12 (16) 20 (24) (24)

2

Work out the square root of 144

$$12$$

Work out 3% of 920

$$1\% = 9.2$$

$$3\% = 27.6$$

$$2\frac{2}{3} - 1\frac{1}{9}$$

$$\frac{8}{3} - \frac{10}{9}$$

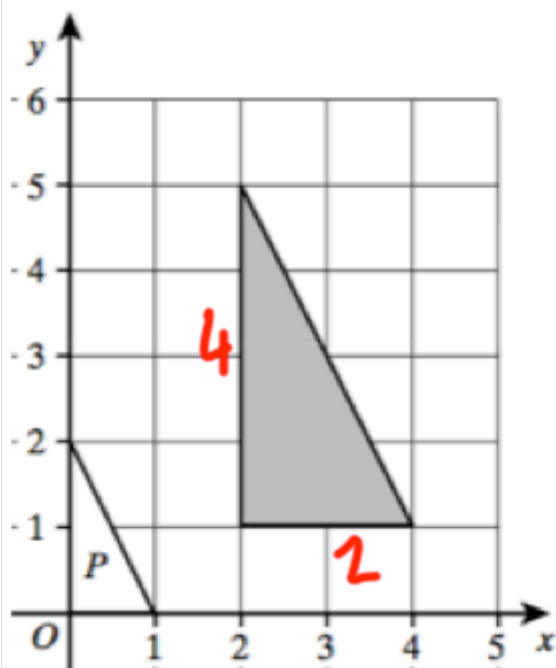
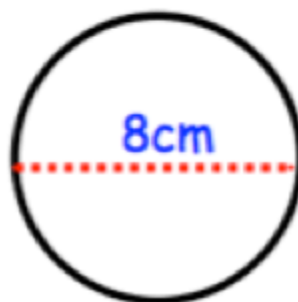
$$\frac{24}{9} - \frac{10}{9}$$

$$= \frac{14}{9} = 1\frac{5}{9}$$

Calculate the circumference. Leave your answer in terms of  $\pi$ 

$$C = 8 \times \pi$$

$$C = 8\pi \text{ cm}$$



The shaded triangle is an enlargement of P.

What is the scale factor of enlargement?

$$2$$

Work out the area of the shaded triangle.

$$\frac{1}{2}(4 \times 2) =$$

$$\underline{4 \text{ cm}^2}$$

Define a "continuous variable"

a variable that can take any value on a given scale

e.g. time, weight, length etc.

Solve these simultaneous equations

$$5x - 2y = 24 \quad \times 3$$

$$4x + 3y = 10 \quad \times 2$$

$$15x - 6y = 72$$

$$8x + 6y = 20$$

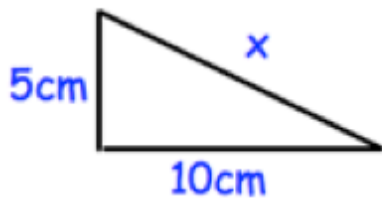
add

$$23x = 92 \quad \text{check}$$

$$x = 4 \quad 16 + -6 = 10$$

$$20 - 2y = 24$$

$$-2y = 4 \quad y = -2$$



Shown is a right angled triangle.

Find x.  
Give your answer as a simplified surd.

$$x^2 = 5^2 + 10^2$$

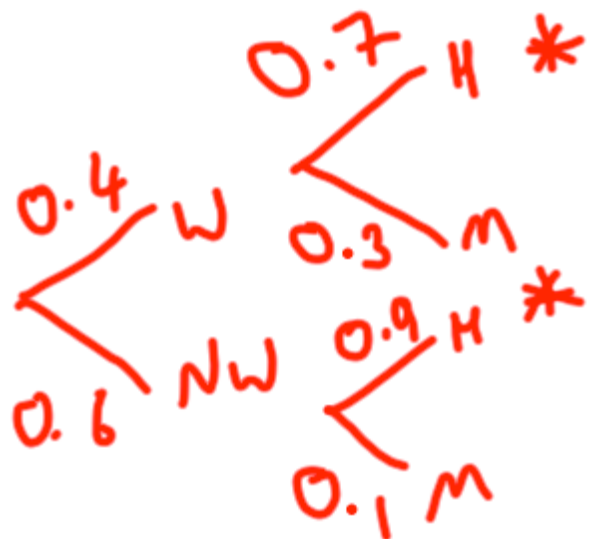
$$x^2 = 125$$

$$x = \sqrt{125} = \sqrt{25 \times 5} = 5\sqrt{5}$$

James takes part in an archery competition.

The probability of it being windy is 0.4.  
The probability of James hitting a target in windy weather is 0.7.  
The probability of James hitting a target when it is not windy is 0.9.

Show this in a tree diagram.



Find the probability of James hitting the target.

$$0.4 \times 0.7 = 0.28$$

$$0.6 \times 0.9 = 0.54$$


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$$0.84$$