

Starter

1. A straight line is given by the equation $x - 6y = 9$.
Find the line's gradient and the y-intercept.

2. Express as a single fraction

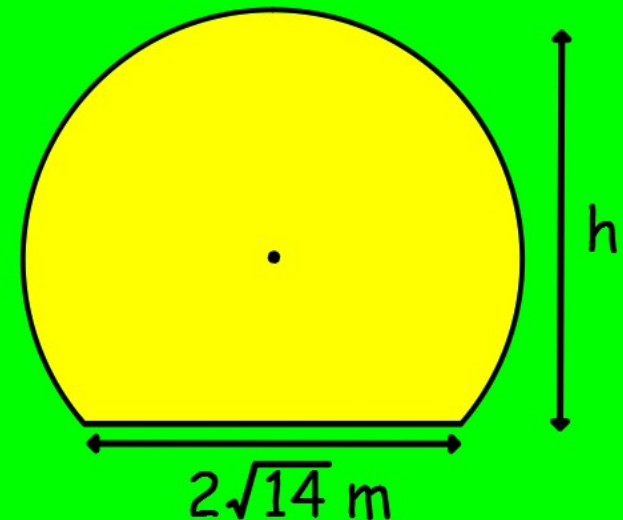
a. $\frac{3k}{2} \div \frac{k}{12}$

b. $\frac{4p - 1}{5} - \frac{3}{p}$

3. Sarah has a collection of gold jewellery which appreciates in value by 4.77% per annum.

If it was worth £2,430 in 2010, how much will it be worth in 2016?

4. Find the height, h , of the tunnel below as a surd in its simplest form given the radius of the tunnel is $\sqrt{32}$ m.



Starter

1. Find the volume of a cone with a radius of 3cm and height of 5cm.
Take $\pi = 3.14$.

2. Sketch the lines below

a. $y = 4x - 6$

b. $y = -2x + 5$

c. $x = -2$

3. The data given below represents ages of pilots currently working for British Airways.

41, 41, 43, 46, 48, 49, 51, 53, 53, 53, 54,
54, 54, 55, 56, 56, 56, 57, 59, 60, 65, 65

Find the five-figure summary for the data.

4. Factorise fully $14x^2 + 7x - 105$.

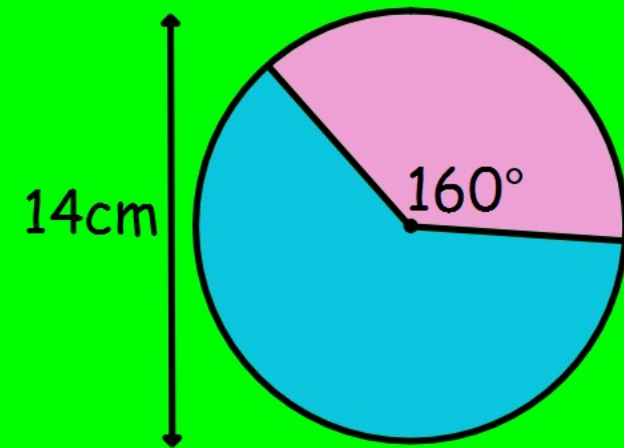
Starter

1. Expand the brackets and simplify

a. $4r(r - 6)(r + 1)$

b. $7y - (3y - 6)(y + 2)$

2. Find the area of the major sector shown opposite.



3. Find the standard deviation of the numbers given below.

5, 4, 8, 7

4. Find the height, h , of the triangle shown opposite.

