

31st December



Corbettmaths



Shown is part of a regular polygon.  
How many sides does it have?

$$360 \div 6 = 60 \text{ sides}$$

Solve the simultaneous equations

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

$$5x - 3y = 15 \quad \times 5$$

$$\begin{aligned} 9x - 15y &= 15 \\ 25x - 15y &= 75 \end{aligned}$$

~~25x - 15 = 75~~

~~sub~~ 
$$9x - 15 = 15$$

$$16x = 60$$

$$x = 3.75$$

sub into

$$3x - 5y = 5$$

$$11.25 - 5y = 5$$

$$5y = 6.25$$

$$y = 1.25$$

$$x = 3.75$$

$$y = 1.25$$

check with

$$5x - 3y = 15$$

$$18.75 - 3.75 = 15 \checkmark$$

Write down the exact value of  $\sin 30^\circ$

$$\frac{1}{2}$$

Calculate the pressure if the area is  $10\text{cm}^2$  and the force is  $420\text{N}$

$$p = \frac{F}{A} = \frac{420}{10} = 42 \text{ N/cm}^2$$

or  $10 \div 10000 = 0.001 \text{ m}^2$

$$p = \frac{F}{A} = \frac{42}{0.001}$$

$$= 42000 \text{ N/m}^2$$

$\xi = \{1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12\}$

$A = \{\text{prime numbers}\} \quad 2 \quad 3 \quad 5 \quad 7 \quad 11$

$B = \{\text{numbers greater than 5}\} \quad 6 \quad 7 \quad 8 \quad 9 \quad 10$   
 $\quad \quad \quad \quad \quad \quad 11 \quad 12$

Draw a Venn diagram for this information.

