

11th March



Corbettmaths

Which equation has solutions which are rational?

$$\frac{4y^2}{6} = 10$$

$$y^2 = 15$$

$$\frac{4y^2}{8} = 11$$

$$y^2 = 22$$

$$\frac{4y^2}{3} = 12$$

$$y^2 = 9$$

$$\frac{4y^2}{3} = 12$$

Write down the gradient of a line that is perpendicular to the line $y = 2x$

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

Write down the equation of a line perpendicular to $y = 2x$

$$y = -\frac{1}{2}x + 7$$

A is inversely proportional to the square of B.

$$A \propto \frac{1}{B^2}$$

When $A = 10$, $B = 4$.

Find A when $B = 10$

$$A = \frac{k}{B^2}$$

$$10 = \frac{k}{16}$$

$$k = 160$$

$$A = \frac{160}{B^2}$$

$$A = \frac{160}{100}$$

$$A = 1.6$$

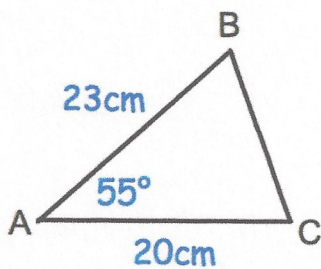
Simplify

$$\frac{x^2 + 8x + 15}{x^2 - x - 12}$$

$$\frac{(x+3)(x+5)}{(x-4)(x+3)}$$

$$\frac{x+5}{x-4}$$

$$\frac{x+5}{x-4}$$



Find the length of BC

$$BC^2 = 20^2 + 23^2 - 2 \times 20 \times 23 \cos 55$$

$$BC^2 = 401.3096786$$

$$BC = 20.03 \text{ cm}$$