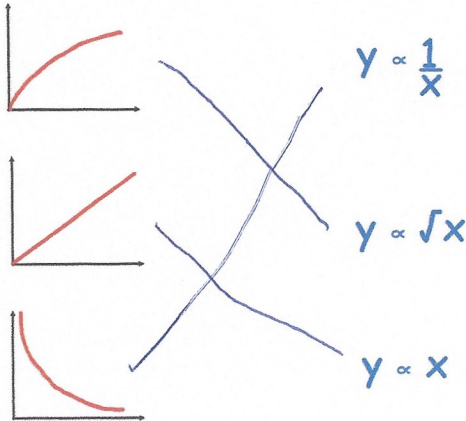


23rd February



CorbettmOths



$y \propto \frac{1}{x}$

$y \propto \sqrt{x}$

$y \propto x$

Match each graph to the correct relationship.

Evaluate

$64^{-\frac{2}{3}}$

$\frac{1}{16}$

Simplify fully

$\sqrt{275}$

$\sqrt{25} \times \sqrt{11}$

$5\sqrt{11}$

Write $18\cos 30^\circ + 2\tan 60^\circ$ in the form $a\sqrt{b}$

$18\left(\frac{\sqrt{3}}{2}\right) + 2\sqrt{3}$

$9\sqrt{3} + 2\sqrt{3}$

$11\sqrt{3}$

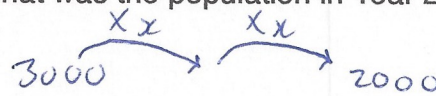
The population of an island is decreasing exponentially.

Martin has begun to monitor the population each year.

Year 6 - Population 3000

Year 8 - Population 2000

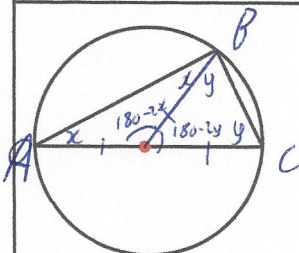
What was the population in Year 2?



$x = 0.8164965809\dots$

$3000 \div (0.8164965809\dots)^4$

6750



Prove that the angle in a semi-circle is always 90°

Angles in a triangle = 180°

$(\triangle ABC) \quad 2x + 2y = 180^\circ$

$\div 2$

$x + y = 90^\circ \quad \text{QED}$