

14th August



Corbettmaths

Estimate the cube root of 50.

$$3.6 / 3.7$$

Which of these equations has a rational solution?

Equation 1

$$\frac{3}{4}x^2 = 30$$

Equation 2

$$\frac{2}{25}x^3 = 10$$

Equation 3

$$\frac{2}{3}x^4 = 6$$

Equation 2

$$x^3 = 125$$

$$x = 5$$

The probability that Ben goes running on a Sunday is 0.8

0.2

The probability that Carl goes running on a Sunday is 0.7

0.3

Calculate the probability that both Ben and Carl do not go for a run on Sunday.

$$0.2 \times 0.3 = 0.06$$

x	2	4	b
y	20	a	5000

$$a = 5$$

y is inversely proportional to the square of x

$$b = 0.1265$$

Find a and b.

$$y \propto \frac{1}{x^2} \quad y = \frac{k}{x^2}$$

$$\frac{80}{4^2} = 5$$

$$20 = \frac{k}{4} \quad k = 80$$

$$y = \frac{80}{x^2}$$

$$5000 = \frac{80}{x^2}$$

$$x = 0.126$$

A leaking fish tank loses 25% of its contents each day.
 Danny says that the fish tank will have lost over 90% of its original contents by the end of day 4.

Is Danny correct?

$$100 \times 0.75^4 = 31.64$$

No, the fish tank has only lost 68.36%.