Corbettmaths

Factorise

$$x^2 - 7x + 12$$

$$(x - 3)(x - 4)$$

---

420 people visit a museum during one day.

$2 + 5 = 7$

The ratio children : adults is $2 : 5$

How many more adults than children visited the library?
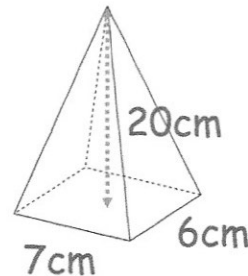
$420 \div 7 = 60$

$60 \times 2 = 120$
$60 \times 5 = 300$

$300 - 120 = 180$

Calculate the volume of the pyramid.

$\frac{1}{3} \times 6 \times 7 \times 20$

$= 280 \, cm^3$

20cm

7cm   6cm

Solve

$$y^2 - 7y - 18 = 0$$

$$(y - 9)(y + 2) = 0$$

$y = 9$ or $y = -2$

A radioactive substance decays over time.
Every year its mass decreases by 8%.

How many years will it take for 200kg of the substance to decay to a mass less than 80kg?

$200 \times 0.92^{10} = 86.87...$

$200 \times 0.92^{11} = 79.92...$

11 years