



Simplify

$$(2xy^3)^3$$

$$(2xy^3) \times (2xy^3) \times (2xy^3)$$

$$8x^3y^9$$

Solve, giving your answers to one decimal place.

$$3x^2 = 10 - 2x$$

$$3x^2 + 2x - 10 = 0$$

$$a = 3 \quad b = 2 \quad c = -10$$

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

$$x = \frac{-2 \pm \sqrt{4 - 4(3)(-10)}}{6}$$

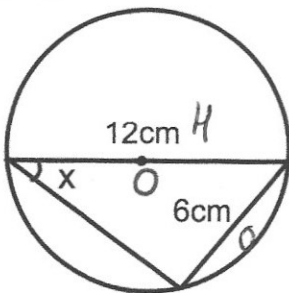
$$x = 1.5 \quad \text{or} \quad x = -2.2$$

Leonie bought a hat and a coat.
The hat cost £6
She sold both items for a total of £45
Leonie made 300% profit on the hat
and 125% profit on the total cost.

$$50\%$$

Work out her percentage profit on the cost of the coat.

	bought	sold
Hat	6	24
Coat	14	21
Total	20	45

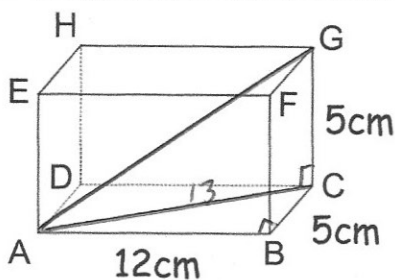


$$5^\circ H$$

Find x

$$\sin x = \frac{6}{12} = \frac{1}{2}$$

$$x = 30^\circ$$



$$AC^2 = 5^2 + 12^2$$

$$AC^2 = 169$$

$$AC = 13$$

Shown is a cuboid.

Calculate the length AG

$$AG^2 = 13^2 + 5^2$$

$$= 169 + 25$$

$$= 194$$

$$AG = \sqrt{194} = 13.93 \text{ cm}$$