GCSE FOUNDATION · REVISION MAT 3

Roots and powers

1 Work out

(a) 6^2 (b) 4^3

(c) $\sqrt{64}$ (d) $\sqrt[3]{125}$

2 (a) Write down a square number between 30 and 45.

(b) Write down a cube number between 200 and 250.

3 Cal says,

"$6^2 = 12$"

Explain why Cal is wrong.

4 Show that

$2^4 + 3^2 = 25$

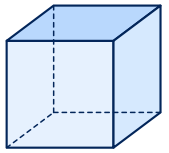
5 A square garden has an area of 196 m^2.



Fencing is put all the way round the edge. It costs £3.80 per metre.

Work out the total cost of the fencing.

6 A cube has a volume of 216 cm^3.



Work out the total surface area of the cube.

1 (a) **36** (b) **64**

(c) **8** (d) **5**

2 (a) **36**

(b) **216**

3 Cal has multiplied 6 by 2.

$6^2 = 6 \times 6 = \mathbf{36}$

ANSWERS · REVISION MAT 3

Roots and powers

4 $2^4 = 16$

$3^2 = 9$

$16 + 9 = 25$ ✓

5 Side = $\sqrt{196} = 14$ m

Perimeter = $4 \times 14 = 56$ m

Cost = $56 \times$ £3.80 = **£212.80**

6 Side = $\sqrt[3]{216} = 6$ cm

One face = 36 cm^2

Surface area = $6 \times 36 =$ **216 cm^2**

Mr&Mrs MATHS