GCSE FOUNDATION · REVISION MAT 5

Roots and powers

1 Work out

(a) 8^2 (b) 3^3

(c) $\sqrt{169}$ (d) $\sqrt[3]{1000}$

2 (a) Write down a square number between 60 and 80.

(b) Write down a cube number between 500 and 600.

3 Eli says,

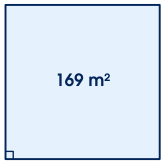
"$3^4 = 12$"

Explain why Eli is wrong.

4 Show that

$9^2 + 5^3 = 206$

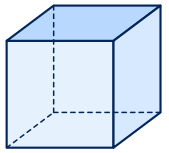
5 A square garden has an area of 169 m^2.



Fencing is put all the way round the edge. It costs £4.20 per metre.

Work out the total cost of the fencing.

6 A cube has a volume of 343 cm^3.



Work out the total surface area of the cube.

1 (a) **64** (b) **27**

(c) **13** (d) **10**

2 (a) **64**

(b) **512**

3 Eli has multiplied 3 by 4.

$3^4 = 3 \times 3 \times 3 \times 3 =$ **81**

ANSWERS · REVISION MAT 5

Roots and powers

4 $9^2 = 81$

$5^3 = 125$

$81 + 125 = 206$ ✓

5 Side = $\sqrt{169} = 13$ m

Perimeter = $4 \times 13 = 52$ m

Cost = $52 \times$ £4.20 = **£218.40**

6 Side = $\sqrt[3]{343} = 7$ cm

One face = 49 cm^2

Surface area = $6 \times 49 =$ **294 cm^2**

Mr&Mrs MATHS