GCSE FOUNDATION · REVISION MAT 4

Roots and powers

1 Work out

(a) 11^2 (b) 5^3

(c) $\sqrt{144}$ (d) $\sqrt[3]{8}$

2 (a) Write down a square number between 120 and 150.

(b) Write down a cube number between 300 and 400.

3 Dina says,

"$10^3 = 30$"

Explain why Dina is wrong.

4 Show that

$6^2 + 4^3 = 100$

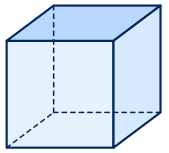
5 A square garden has an area of 225 m^2.



Fencing is put all the way round the edge. It costs £5.40 per metre.

Work out the total cost of the fencing.

6 A cube has a volume of 27 cm^3.



Work out the total surface area of the cube.

Mr&Mrs MATHS

1 (a) **121** (b) **125**

(c) **12** (d) **2**

2 (a) **121 or 144**

(b) **343**

3 Dina has multiplied 10 by 3.

$10^3 = 10 \times 10 \times 10 =$ **1000**

ANSWERS · REVISION MAT 4

Roots and powers

4 $6^2 = 36$

$4^3 = 64$

$36 + 64 = 100$ ✓

5 Side = $\sqrt{225} = 15$ m

Perimeter = $4 \times 15 = 60$ m

Cost = $60 \times$ £5.40 = **£324.00**

6 Side = $\sqrt[3]{27} = 3$ cm

One face = 9 cm^2

Surface area = $6 \times 9 =$ **54 cm^2**

Mr&Mrs MATHS