GCSE HIGHER · REVISION MAT 1

Powers and roots

1 Work out

4^3

2 Work out

$\sqrt[3]{125} + \sqrt{81}$

3 Explain why $\sqrt{50}$ is between 7 and 8.

4 A square has area 196 cm².

A cube has volume 216 cm³.

Which has the longer side?

5 Show that

$2^5 - 5^2 = 7$

6 Find two square numbers, both greater than 0, that add up to 100.

7 Show that

$\sqrt{0.09} = 0.3$ and $\sqrt[3]{0.008} = 0.2$.

8 n is a positive whole number.

$n^2 + n^3 = 252$

Find n.

Mr&Mrs MATHS

ANSWERS · REVISION MAT 1

Powers and roots

1 **64**

2 $5 + 9$

14

3 $7^2 = 49$ and $8^2 = 64$

50 is between 49 and 64.

4 Square: $\sqrt{196} = 14$ cm

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

The square

5 $32 - 25$

= 7

6 Try squares up to 100

36 + 64

7 $0.3^2 = 0.09$ ✓

$0.2^3 = 0.008$ ✓

8 Try $n = 6$: $36 + 216$

***n* = 6**