GCSE HIGHER · REVISION MAT 5

Powers and roots

1 Work out

15^2

2 Work out

$\sqrt[3]{1000} - \sqrt{49}$

3 Explain why 49 has two square roots.

4 Which is bigger, 4^5 or 5^4?

Show working.

5 Show that

$6^2 + 8^2 = 10^2$

6 Find the smallest whole number n for which $n^3 > 500$.

7 Show that

$\sqrt{1.44} + \sqrt[3]{0.027} = 1.5$

8 Find a whole number that is 1 more than a square number and 1 less than a cube number.

Mr&Mrs MATHS

ANSWERS · REVISION MAT 5

Powers and roots

1 **225**

2 $10 - 7$

3

3 $7^2 = 49$ **and** $(-7)^2 = 49$

4 $4^5 = 1024$

$5^4 = 625$

4^5

5 $36 + 64 = 100$

= 10^2

6 $7^3 = 343$, $8^3 = 512$

***n* = 8**

7 $1.2 + 0.3$

= 1.5

8 Cubes: 8, 27, 64...

$27 - 1 = 26 = 25 + 1$

26