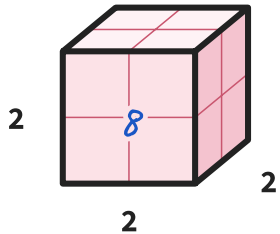


Cubes and Cube Roots

ANSWERS

1

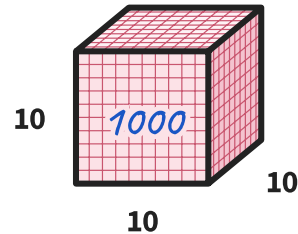
Work out 2^3 .



$$\begin{aligned}
 & 2 \times 2 \times 2 \\
 = & 4 \times 2 = 8 \\
 2^3 = & 8
 \end{aligned}$$

2

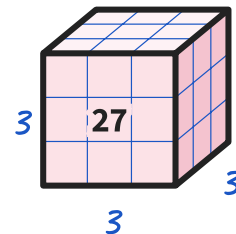
Work out 10^3 .



$$\begin{aligned}
 & 10 \times 10 \times 10 \\
 = & 100 \times 10 = 1000 \\
 10^3 = & 1000
 \end{aligned}$$

3

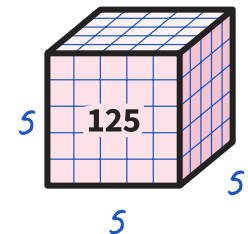
Work out $\sqrt[3]{27}$.



$$\begin{aligned}
 & 3 \times 3 \times 3 \\
 = & 9 \times 3 = 27 \\
 \sqrt[3]{27} = & 3
 \end{aligned}$$

4

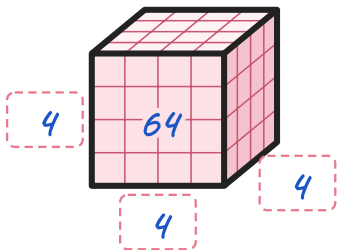
Work out $\sqrt[3]{125}$.



$$\begin{aligned}
 & 5 \times 5 \times 5 \\
 = & 25 \times 5 = 125 \\
 \sqrt[3]{125} = & 5
 \end{aligned}$$

5

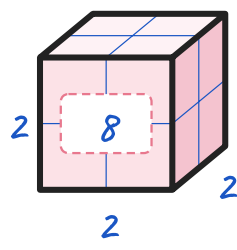
Work out 4^3 .



$$\begin{aligned}
 & 4 \times 4 \times 4 \\
 = & 16 \times 4 = 64 \\
 4^3 = & 64
 \end{aligned}$$

6

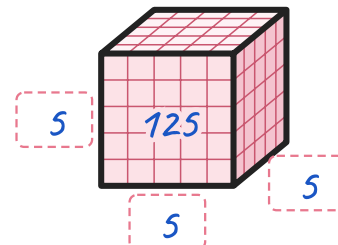
Work out $\sqrt[3]{8}$.



$$\begin{aligned}
 & 2 \times 2 \times 2 \\
 = & 4 \times 2 = 8 \\
 \sqrt[3]{8} = & 2
 \end{aligned}$$

7

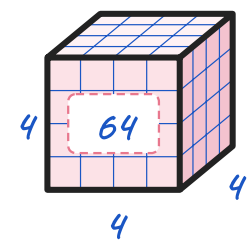
A big cube has 5 small cubes along each edge. How many small cubes make the big cube?



$$\begin{aligned}
 & 5 \times 5 \times 5 \\
 = & 25 \times 5 = 125 \\
 \text{Small cubes} = & 125
 \end{aligned}$$

8

A big cube is made from 64 small cubes. How many small cubes are along each edge?



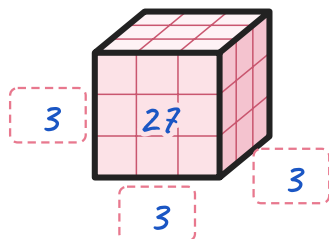
$$\begin{aligned}
 & 4 \times 4 \times 4 \\
 = & 16 \times 4 = 64 \\
 \text{Along each edge} = & 4
 \end{aligned}$$

Cubes and Cube Roots *further practice*

ANSWERS

9

Work out 3^3 .

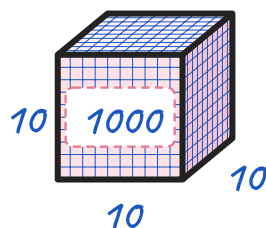


$$3 \times 3 \times 3 = 9 \times 3 = 27$$

$$3^3 = 27$$

10

Work out $\sqrt[3]{1000}$.

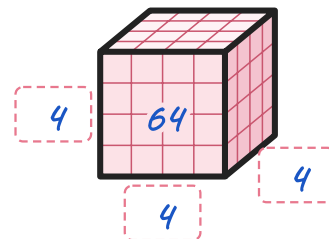


$$10 \times 10 \times 10 = 100 \times 10 = 1000$$

$$\sqrt[3]{1000} = 10$$

11

Some dice are stacked to make a cube. There are 4 dice along each edge. How many dice are there?

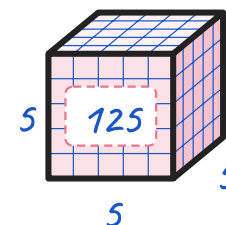


$$4 \times 4 \times 4 = 16 \times 4 = 64$$

Dice = 64

12

Ben makes a big cube from 125 small cubes. How many small cubes are along each edge?

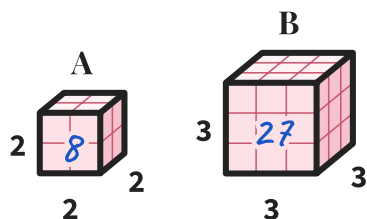


$$5 \times 5 \times 5 = 25 \times 5 = 125$$

Along each edge = 5

13

Here are two cubes, A and B, made of small cubes. How many small cubes are there altogether?



Small cubes in A 8

Small cubes in B 27

Altogether 35

14

Circle the cube numbers. Use the lines to help.

6 (8) 9 12 (27) 30 (64)

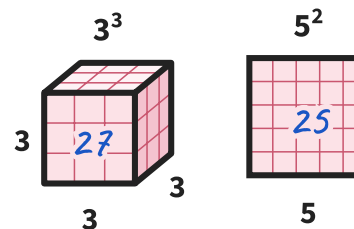
$$2 \times 2 \times 2 = 8$$

$$3 \times 3 \times 3 = 27$$

$$4 \times 4 \times 4 = 64$$

15

Which is bigger, 3^3 or 5^2 ?



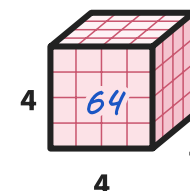
$3^3 = 27$

$5^2 = 25$

Bigger 3^3

16

Sam says $4^3 = 12$. What has Sam done wrong? Finish the sentences.



Sam has worked out $4 \times$ 3.

$4^3 =$ 64 because $4 \times 4 \times 4 = 64$.