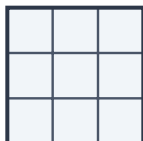


Square and Cube Numbers

Count the tiles. Write each square number.

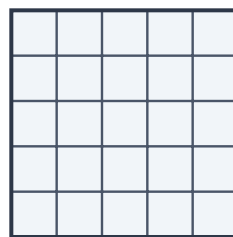
1.

Example



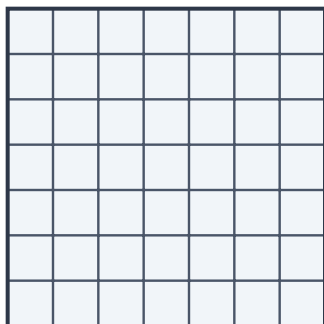
$$\begin{aligned} & \underline{3} \times \underline{3} \\ &= \underline{3}^2 \\ &= \underline{9} \end{aligned}$$

2.



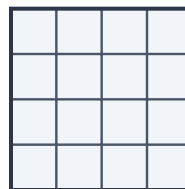
$$\begin{aligned} & \underline{\quad} \times \underline{\quad} \\ &= \underline{\quad}^2 \\ &= \underline{\quad} \end{aligned}$$

3.



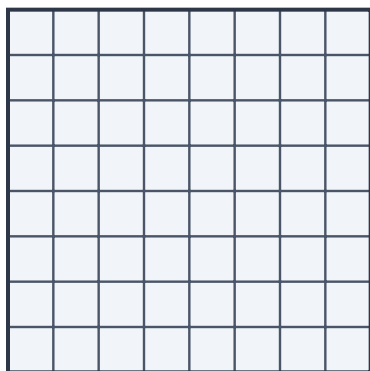
$$\begin{aligned} & \underline{\quad} \times \underline{\quad} \\ &= \underline{\quad}^2 \\ &= \underline{\quad} \end{aligned}$$

4.



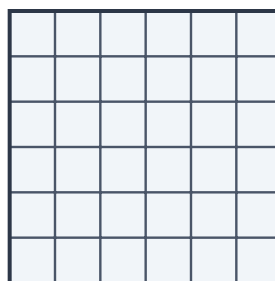
$$\begin{aligned} & \underline{\quad} \times \underline{\quad} \\ &= \underline{\quad}^2 \\ &= \underline{\quad} \end{aligned}$$

5.



$$\begin{aligned} & \underline{\quad} \times \underline{\quad} \\ &= \underline{\quad}^2 \\ &= \underline{\quad} \end{aligned}$$

6.



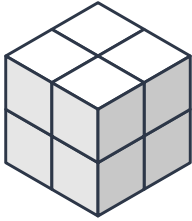
$$\begin{aligned} & \underline{\quad} \times \underline{\quad} \\ &= \underline{\quad}^2 \\ &= \underline{\quad} \end{aligned}$$

Square and Cube Numbers

Count the small cubes. Write each cube number.

1.

Example

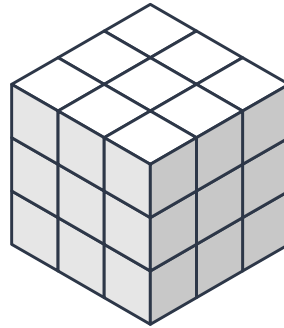


$$\underline{2} \times \underline{2} \times \underline{2}$$

$$= \underline{2}^3$$

$$= \underline{8}$$

2.

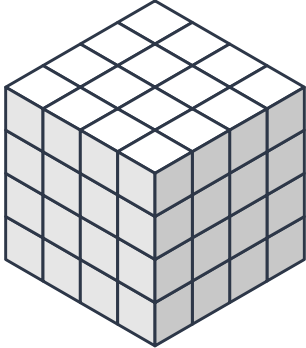


$$\underline{\quad} \times \underline{\quad} \times \underline{\quad}$$

$$= \underline{\quad}^3$$

$$= \underline{\quad}$$

3.

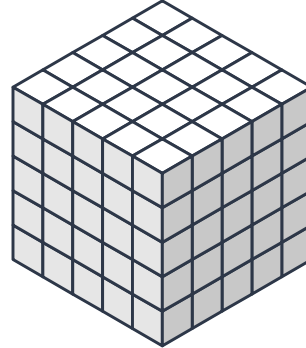


$$\underline{\quad} \times \underline{\quad} \times \underline{\quad}$$

$$= \underline{\quad}^3$$

$$= \underline{\quad}$$

4.



$$\underline{\quad} \times \underline{\quad} \times \underline{\quad}$$

$$= \underline{\quad}^3$$

$$= \underline{\quad}$$

Write each one as a cube number and work it out.

5. $1 \times 1 \times 1 = \underline{\quad}^3 = \underline{\quad}$

6. $10 \times 10 \times 10 = \underline{\quad}^3 = \underline{\quad}$

7. $6 \times 6 \times 6 = \underline{\quad}^3 = \underline{\quad}$

Square and Cube Numbers

Fill in the tables. Then write each product with a raised 2 or 3.

Square numbers: multiply the number by itself.

Number	1	2	3	4	5	6	7	8	9	10	11	12
Squared	1	4			25					100		

Cube numbers: multiply the number by itself, then by itself again.

Number	1	2	3	4	5	10
Cubed	1	8				

Write each product with a raised 2 or 3.

Example

1. $9 \times 9 = 9^2 = 81$

2. $2 \times 2 \times 2 = \underline{\quad} = \underline{\quad}$

3. $11 \times 11 = \underline{\quad} = \underline{\quad}$

4. $4 \times 4 \times 4 = \underline{\quad} = \underline{\quad}$

5. $12 \times 12 = \underline{\quad} = \underline{\quad}$

6. $5 \times 5 \times 5 = \underline{\quad} = \underline{\quad}$

7. $8 \times 8 = \underline{\quad} = \underline{\quad}$

8. $3 \times 3 \times 3 = \underline{\quad} = \underline{\quad}$

Right or wrong? Tick it or cross it out.

9. $4^2 = 8$ ☐

10. $3^3 = 27$ ☐

11. $2^3 = 6$ ☐

12. $10^2 = 100$ ☐

13. $5^2 = 10$ ☐

14. $6^2 = 36$ ☐

Square and Cube Numbers

Is it a square number, a cube number, both or neither?

Tick one box for each number. Example

	Square	Cube	Both	Neither
9	☒	☐	☐	☐
27	☐	☐	☐	☐
64	☐	☐	☐	☐
20	☐	☐	☐	☐
49	☐	☐	☐	☐
8	☐	☐	☐	☐
1	☐	☐	☐	☐
50	☐	☐	☐	☐

	Square	Cube	Both	Neither
36	☐	☐	☐	☐
125	☐	☐	☐	☐
81	☐	☐	☐	☐
18	☐	☐	☐	☐
100	☐	☐	☐	☐
1,000	☐	☐	☐	☐
16	☐	☐	☐	☐
45	☐	☐	☐	☐

Find the number.

17. The square number between 40 and 50: _____
18. The cube number between 100 and 200: _____
19. The square number between 80 and 90: _____
20. The square and cube number between 50 and 100: _____
21. The cube number between 20 and 30: _____
22. The square number between 115 and 130: _____

Square and Cube Numbers

Work out each calculation. Then solve the problems.

Work out the squares and cubes first.

Example

1. $4^2 + 3^2 =$ 25

2. $2^3 \times 5 =$ _____

3. $10^2 - 6^2 =$ _____

4. $5^2 + 2^3 =$ _____

5. $3^3 - 5 =$ _____

6. $6^2 \div 4 =$ _____

7. $7^2 - 2^3 =$ _____

8. $9^2 + 1^3 =$ _____

Solve each problem.

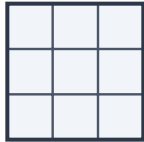
9. A square garden is 7 m long and 7 m wide. What is its area? _____ m^2
10. Leo builds a cube from 1 cm cubes. Each edge is 4 cubes long. How many cubes does he use? _____ cubes
11. A square patio has 9 tiles along each side. How many tiles are there in all? _____ tiles
12. Mia says 3^2 is 6. What is 3^2 really? _____
13. A number squared is 121. What is the number? _____

Square and Cube Numbers

Count the tiles. Write each square number.

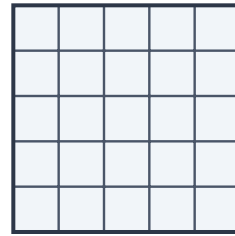
1.

Example



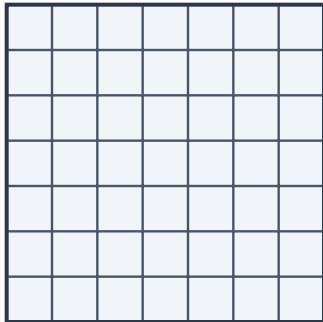
$$\begin{aligned} & \underline{3} \times \underline{3} \\ &= \underline{3^2} \\ &= \underline{9} \end{aligned}$$

2.



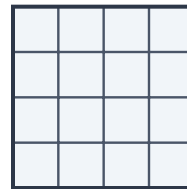
$$\begin{aligned} & \underline{5} \times \underline{5} \\ &= \underline{5^2} \\ &= \underline{25} \end{aligned}$$

3.



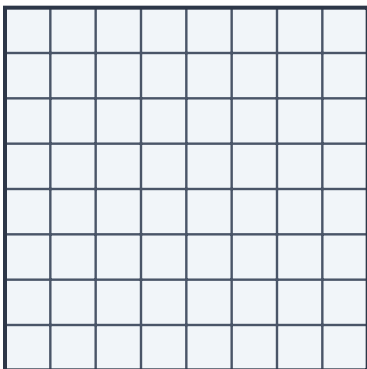
$$\begin{aligned} & \underline{7} \times \underline{7} \\ &= \underline{7^2} \\ &= \underline{49} \end{aligned}$$

4.



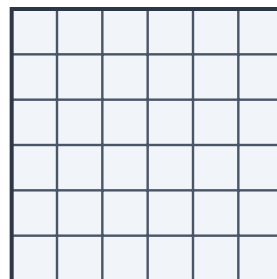
$$\begin{aligned} & \underline{4} \times \underline{4} \\ &= \underline{4^2} \\ &= \underline{16} \end{aligned}$$

5.



$$\begin{aligned} & \underline{8} \times \underline{8} \\ &= \underline{8^2} \\ &= \underline{64} \end{aligned}$$

6.



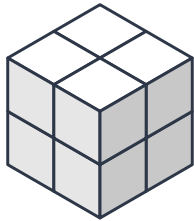
$$\begin{aligned} & \underline{6} \times \underline{6} \\ &= \underline{6^2} \\ &= \underline{36} \end{aligned}$$

Square and Cube Numbers

Count the small cubes. Write each cube number.

1.

Example

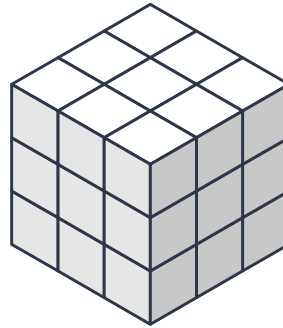


$$\underline{2} \times \underline{2} \times \underline{2}$$

$$= \underline{2}^3$$

$$= \underline{8}$$

2.

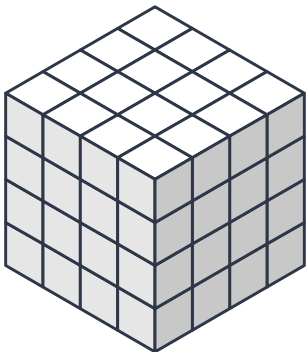


$$\underline{3} \times \underline{3} \times \underline{3}$$

$$= \underline{3}^3$$

$$= \underline{27}$$

3.

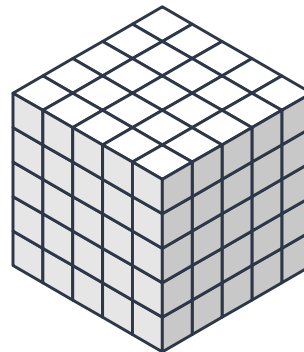


$$\underline{4} \times \underline{4} \times \underline{4}$$

$$= \underline{4}^3$$

$$= \underline{64}$$

4.



$$\underline{5} \times \underline{5} \times \underline{5}$$

$$= \underline{5}^3$$

$$= \underline{125}$$

Write each one as a cube number and work it out.

$$5. \quad 1 \times 1 \times 1 = \underline{1}^3 = \underline{1}$$

$$6. \quad 10 \times 10 \times 10 = \underline{10}^3 = \underline{1,000}$$

$$7. \quad 6 \times 6 \times 6 = \underline{6}^3 = \underline{216}$$

Square and Cube Numbers

Fill in the tables. Then write each product with a raised 2 or 3.

Square numbers: multiply the number by itself.

Number	1	2	3	4	5	6	7	8	9	10	11	12
Squared	1	4	9	16	25	36	49	64	81	100	121	144

Cube numbers: multiply the number by itself, then by itself again.

Number	1	2	3	4	5	10
Cubed	1	8	27	64	125	1,000

Write each product with a raised 2 or 3.

Example

1. $9 \times 9 = 9^2 = 81$

2. $2 \times 2 \times 2 = 2^3 = 8$

3. $11 \times 11 = 11^2 = 121$

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

5. $12 \times 12 = 12^2 = 144$

6. $5 \times 5 \times 5 = 5^3 = 125$

7. $8 \times 8 = 8^2 = 64$

8. $3 \times 3 \times 3 = 3^3 = 27$

Right or wrong? Tick it or cross it out.

9. $4^2 = 8$ ☒

10. $3^3 = 27$ ☒

11. $2^3 = 6$ ☒

12. $10^2 = 100$ ☒

13. $5^2 = 10$ ☒

14. $6^2 = 36$ ☒

Square and Cube Numbers

Is it a square number, a cube number, both or neither?

Tick one box for each number.

Example

	Square	Cube	Both	Neither
9	☒	☐	☐	☐
27	☐	☒	☐	☐
64	☐	☐	☒	☐
20	☐	☐	☐	☒
49	☒	☐	☐	☐
8	☐	☒	☐	☐
1	☐	☐	☒	☐
50	☐	☐	☐	☒

	Square	Cube	Both	Neither
36	☒	☐	☐	☐
125	☐	☒	☐	☐
81	☒	☐	☐	☐
18	☐	☐	☐	☒
100	☒	☐	☐	☐
1,000	☐	☒	☐	☐
16	☒	☐	☐	☐
45	☐	☐	☐	☒

Find the number.

17. The square number between 40 and 50: 49

18. The cube number between 100 and 200: 125

19. The square number between 80 and 90: 81

20. The square and cube number between 50 and 100: 64

21. The cube number between 20 and 30: 27

22. The square number between 115 and 130: 121

Square and Cube Numbers

Work out each calculation. Then solve the problems.

Work out the squares and cubes first.

Example

1. $4^2 + 3^2 =$ 25

2. $2^3 \times 5 =$ 40

3. $10^2 - 6^2 =$ 64

4. $5^2 + 2^3 =$ 33

5. $3^3 - 5 =$ 22

6. $6^2 \div 4 =$ 9

7. $7^2 - 2^3 =$ 41

8. $9^2 + 1^3 =$ 82

Solve each problem.

9. A square garden is 7 m long and 7 m wide. What is its area? 49 m²
10. Leo builds a cube from 1 cm cubes. Each edge is 4 cubes long. How many cubes does he use? 64 cubes
11. A square patio has 9 tiles along each side. How many tiles are there in all? 81 tiles
12. Mia says 3^2 is 6. What is 3^2 really? 9
13. A number squared is 121. What is the number? 11