

Exercise 1.1.2 - Square and Cube Numbers Solutions

1. List the first 10 Square numbers.

Square numbers are obtained by multiplying a whole number by itself.

The formula for square numbers is n^2 where n is a positive integer.

1. $1^2 = 1$

2. $2^2 = 4$

3. $3^2 = 9$

4. $4^2 = 16$

5. $5^2 = 25$

6. $6^2 = 36$

7. $7^2 = 49$

8. $8^2 = 64$

9. $9^2 = 81$

10. $10^2 = 100$

Therefore, the first 10 square numbers are: 1, 4, 9, 16, 25, 36, 49, 64, 81, 100.

2. List the first 10 Cube numbers.

Cube numbers are obtained by multiplying a whole number by itself three times.

The formula for cube numbers is n^3 where n is a positive integer.

1. $1^3 = 1$

2. $2^3 = 8$

3. $3^3 = 27$

4. $4^3 = 64$

5. $5^3 = 125$

6. $6^3 = 216$

7. $7^3 = 343$

8. $8^3 = 512$

9. $9^3 = 729$

10. $10^3 = 1000$

Therefore, the first 10 cube numbers are: 1, 8, 27, 64, 125, 216, 343, 512, 729, 1000.

3. Solve the following questions:

a) $12^2 =$

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

b) $15^2 =$

$$15^2 = 15 \times 15 = 225$$

c) $\sqrt{256} =$

To find the square root, we need to determine what number multiplied by itself equals 256.

$$16^2 = 16 \times 16 = 256$$

$$\text{Therefore, } \sqrt{256} = 16$$

d) $\sqrt{1024} =$

To find the square root, we need to determine what number multiplied by itself equals 1024.

$$32^2 = 32 \times 32 = 1024$$

$$\text{Therefore, } \sqrt{1024} = 32$$

e) $11^3 =$

$$11^3 = 11 \times 11 \times 11 = 1331$$

f) $\sqrt[3]{512} =$

To find the cube root, we need to determine what number cubed equals 512.

$$8^3 = 8 \times 8 \times 8 = 512$$

$$\text{Therefore, } \sqrt[3]{512} = 8$$