

Exponents

Grade 5 Exponents Worksheet

Base \longrightarrow $2^3 = 2 \times 2 \times 2$

Exponent \swarrow

The exponent tells us how many times the base is multiplied by itself.

Rewrite the following exponents using repeated multiplication and solve.
For example, $3^2 = 3 \times 3 = 9$

1) $4^2 =$ _____

6) $8^3 =$ _____

2) $2^8 =$ _____

7) $4^4 =$ _____

3) $3^3 =$ _____

8) $10^5 =$ _____

4) $5^4 =$ _____

9) $12^2 =$ _____

5) $7^2 =$ _____

10) $6^4 =$ _____

Rewrite the following expressions using exponents.

For example, $5 \times 5 = 5^2$

11) $8 \times 8 \times 8 =$ _____

12) $7 \times 7 \times 7 \times 7 =$ _____

13) $6 \times 6 \times 6 \times 6 \times 6 =$ _____

14) $5 \times 5 \times 5 =$ _____

15) $2 \times 2 \times 2 \times 2 =$ _____

16) $10 \times 10 =$ _____

17) $6 \times 6 \times 6 \times 6 \times 6 =$ _____

18) $3 \times 3 \times 3 \times 3 =$ _____

19) $4 \times 4 \times 4 =$ _____

20) $7 \times 7 \times 7 \times 7 \times 7 =$ _____



Answers

- 1) $4 \times 4 = 16$
- 2) $2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2 = 256$
- 3) $3 \times 3 \times 3 = 27$
- 4) $5 \times 5 \times 5 \times 5 = 625$
- 5) $7 \times 7 = 49$
- 6) $8 \times 8 \times 8 = 512$
- 7) $4 \times 4 \times 4 \times 4 = 256$
- 8) $10 \times 10 \times 10 \times 10 \times 10 = 100,000$
- 9) $12 \times 12 = 144$
- 10) $6 \times 6 \times 6 \times 6 = 1,296$
- 11) 8^3
- 12) 7^4
- 13) 6^5
- 14) 5^3
- 15) 2^4
- 16) 10^2
- 17) 6^5
- 18) 3^4
- 19) 4^3
- 20) 7^5