Exponents

Grade 5 Exponents Worksheet

Exponent

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

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 = _____

2) 2^8 = _____

3) 3^3 = _____

4) 5^4 = _____

5) 7^2 = _____

6) 8^3 = _____

7) 4^4 = _____

8) 10^5 = _____

9) 12^2 = _____

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) 10×10 = _____

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