

# EXPONENTS

# ANSWERS

## EXAMPLE 1



THIS IS AN EXPONENT. IT'S A WAY OF SHOWING MULTIPLICATION IN A SHORTER VERSION.

$$4^2 \leftarrow \text{exponent}$$

↑  
base

$$4^2 = 4 \times 4 = \underline{16}$$

I GET IT. THE 4 IS THE NUMBER WE'RE MULTIPLYING AND THE 2 TELLS US HOW MANY 4'S WE HAVE.



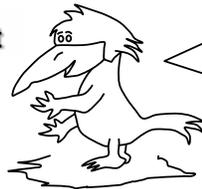
THIS IS FOUR TO THE SECOND POWER OR FOUR SQUARED.

## EXAMPLE 2

$$3^4 \leftarrow \text{exponent}$$

↑  
base

$$3^4 = 3 \times 3 \times 3 \times 3 = 9 \times 9 = \underline{81}$$



SO THIS WILL BE 3 TO THE FOURTH POWER, WHICH IS  $3 \times 3 \times 3 \times 3$ , AND IF I MULTIPLY THE 3'S I'LL GET 81.

### MORE EXAMPLES

$$2^5 = 2 \times 2 \times 2 \times 2 \times 2 = 32$$
$$6^0 = 1$$

Now your turn.

1.  $7^3 = \underline{343}$   
 $7 \times 7 \times 7 = 49 \times 7 = \underline{343}$   
THIS IS CALLED SEVEN TO THE THIRD POWER OR SEVEN CUBED.

2.  $4^1 = \underline{4}$

3.  $9^2 = \underline{81}$

4.  $12^0 = \underline{1}$

5.  $2^4 = \underline{16}$

6.  $3^3 = \underline{27}$

7.  $5^2 = \underline{25}$

8.  $13^2 = \underline{169}$

9.  $1^5 = \underline{1}$

10.  $8^1 = \underline{8}$

11.  $6^3 = \underline{216}$

12.  $2^6 = \underline{64}$

13.  $3^5 = \underline{243}$

14.  $10^4 = \underline{1,000}$

15.  $4^3 = \underline{64}$

16.  $11^3 = \underline{1,331}$

17.  $9^0 = \underline{1}$

18.  $7^4 = \underline{2,401}$