EXPONENTS

ANSWERS

EXAMPLE 1

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

4^{2} ← **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} ← **exponent**

base

SO THIS WILL BE 3 TO THE FOURTH POWER, WHICH IS 3 x 3 x 3 x 3, AND IF I MULTIPLY THE 3's I'LL GET 81.

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

MORE EXAMPLES

$2^{5} = 2 \times 2 \times 2 \times 2 \times 2 = 32$

$6^{0} = 1$

Now your turn.

1. $7^{3} =$ 343

$7 \times 7 \times 7 = 49 \times 7 = \underline{343}$

THIS IS CALLED SEVEN TO THE THIRD POWER OR SEVEN CUBED.

2. $4^{1} =$ 4

3. $9^{2} =$ 81

4. $12^{0} =$ 1

5. $2^{4} =$ 16

6. $3^{3} =$ 27

7. $5^{2} =$ 25

8. $13^{2} =$ 169

9. $1^{5} =$ 1

10. $8^{1} =$ 8

11. $6^{3} =$ 216

12. $2^{6} =$ 64

13. $3^{5} =$ 243

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

15. $4^{3} =$ 64

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

17. $9^{0} =$ 1

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