

Name: _____

Date: _____

Exponents

| | | |
|--|------------|--|
| $(-2)^4$ ↓ The base is -2. $(-2)(-2)(-2)(-2) = 16$ <small>www.worksheetsdirect.com</small> | <u>vs.</u> | -2^4 ↓ The base is 2. $-(2 \cdot 2 \cdot 2 \cdot 2) = -16$ The opposite of.... |
|--|------------|--|

Evaluate each expression when $x = 10$.

1. $x^2 =$ _____ 2. $x^3 =$ _____

3. $x^1 =$ _____ 4. $-(x)^3 =$ _____

Evaluate each expression when $x = -4$.

5. $x^3 =$ _____ 6. $-(x)^3 =$ _____

7. $x^2 =$ _____ 8. $-(x)^2 =$ _____

Evaluate each expression when $x = 8$.

9. $-(x)^2 =$ _____ 10. $-(x)^3 =$ _____

11. $x^2 =$ _____ 12. $x^3 =$ _____

Evaluate each expression when $x = -6$.

13. $x^3 =$ _____ 14. $-(x)^2 =$ _____

15. $-(x)^3 =$ _____ 16. $-(x)^1 =$ _____

Exponents

$$(-2)^4$$

↓

The base is -2.

$$(-2)(-2)(-2)(-2) = 16$$

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vs.

$$-2^4$$

↙ ↓

The base is 2.

$$-(2 \cdot 2 \cdot 2 \cdot 2) = -16$$

↘

The opposite of....

Evaluate each expression when $x = 10$.

1. $x^2 = 100$ _____

2. $x^3 = 1,000$ _____

3. $x^1 = 10$ _____

4. $-(x)^3 = -1,000$ _____

Evaluate each expression when $x = -4$.

5. $x^3 = -64$ _____

6. $-(x)^3 = 64$ _____

7. $x^2 = 16$ _____

8. $-(x)^2 = -16$ _____

Evaluate each expression when $x = 8$.

9. $-(x)^2 = -64$ _____

10. $-(x)^3 = -512$ _____

11. $x^2 = 64$ _____

12. $x^3 = 512$ _____

Evaluate each expression when $x = -6$.

13. $x^3 = -216$ _____

14. $-(x)^2 = -36$ _____

15. $-(x)^3 = 216$ _____

16. $-(x)^1 = 6$ _____