



# Math Worksheet for 8th Grade

## Exponents with negative bases

Name: \_\_\_\_\_

Due Date: \_\_\_\_\_

Teacher: \_\_\_\_\_

Parent Sign: \_\_\_\_\_

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Questions (50)

1. Evaluate  $(-3)^4$ .
2. Evaluate  $-3^4$  (no parentheses).
3. Evaluate  $(-5)^1$ .
4. Evaluate  $(-5)^0$ .
5. Evaluate  $5^0$ .
6. Evaluate  $(-1)^7$ .
7. Evaluate  $(-1)^8$ .
8. Evaluate  $1^{12}$ .
9. Evaluate  $(-2)^3$ .
10. Evaluate  $(-2)^4$ .
11. Without calculating the full number, what is the sign (positive or negative) of  $(-7)^{11}$ ?
12. Without calculating the full number, what is the sign of  $(-7)^{12}$ ?
13. Which is larger:  $(-4)^3$  or  $-4^3$ ? Explain by giving their values.
14. Evaluate  $(-6)^2 + (-6)^3$ .
15. Evaluate  $(-2)^5 \div (-2)^2$ .
16. Evaluate  $(-3)^0 + 0^3$ .
17. Simplify  $(-2)^4 \times (-2)^3$ .
18. Simplify  $(-10)^1 \times (-10)^0$ .
19. If  $a = (-3)^2$  and  $b = (-3)^3$ , which is greater, a or b?
20. Evaluate  $(-4)^1 + (-4)^0$ .
21. Determine the sign of the product  $(-1)^5 \times (-1)^6$ .
22. A pattern: Write the next number in the sign pattern for powers of -1:  $(-1)^1 = -1$ ,  $(-1)^2 = 1$ ,  $(-1)^3 = -1$ , ... What is  $(-1)^{10}$ ?
23. Evaluate  $(-8)^2 - (-8)^1$ .
24. Evaluate  $-(-2)^4$  (the outer minus is separate).
25. Evaluate  $(-0)^5$ .