

Integers with Exponents

Name: _____

Div: _____

Date: _____

★ An exponent only affects the base number and not the integer sign in front of the base. ★ \rightarrow Acts like a (-1)

$$\text{Ex. } -2^3 = -1(2 \times 2 \times 2) = -1(8) = -8$$

\Rightarrow An integer inside of brackets will be included when multiplying out the exponent:

$$\text{Ex. } (-2)^4 = [(-2) \times (-2) \times (-2) \times (-2)] = (+16)$$

Even = Pos.

$$(-2)^3 = [(-2) \times (-2) \times (-2)] = (-8)$$

ODD = Neg.

★ A sign outside of the brackets represents a ± 1 that needs to be multiplied by your product.

$$\text{Ex. } -(-2)^3 = -1[(-2) \times (-2) \times (-2)] = -1 \times (-8) = (+8)$$

Simplify

① $2^4 =$

⑤ $3^3 =$

② $-2^4 =$

⑥ $-3^3 =$

③ $(-2)^4 =$

⑦ $(-3)^3 =$

④ $-(-2)^4 =$

⑧ $-(-3)^3 =$