

Evaluating Integer Exponents

$$5^2$$

Negative Exponents: 2^{-3}

Take the reciprocal of base and change the sign of the **exponent**.

$$\frac{x^{-2}}{y^3} =$$

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Zero Exponent: $5^0 =$

$$x^0 =$$

$$(10x^2y^4)^0 =$$

ANYTHING (except zero) raised to the power of zero equals 1.

Evaluate each of the following.

1. $2^5 \cdot 2^{-2}$

2. -5^{-4}

3. $(-2)^{-4}$

4. $(-5)^{-2}$

compared to

$$-5^{-2}$$

5. $3^{-1} - 2^{-2}$

6. $3^{-2} - 3^{-1}$

7. $(3^{-2} - 3^{-1})^{-2}$

8. $-5^{-1} + 5^0 + 5$