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Powers & Exponents

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- base - the # being multiplied
- exponent - how many times it is multiplied

$$2^3 = 2 \cdot 2 \cdot 2 = 8 \quad / \quad 2^n$$

$$2^0 = 1$$

$$t \cdot t \cdot t \cdot t = t^4$$

$$7 \cdot a \cdot a \cdot a \cdot b \cdot b$$

$$7a^3b^2$$

$$(-9) \cdot (-9) \cdot (-9) = (-9)^3$$

13,048

$$(1 \times 10,000) + (3 \times 1,000) + (4 \times 10) + (8 \times 1)$$

$$(1 \times 10^4) + (3 \times 10^3) + (4 \times 10^1) + (8 \times 10^0)$$

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$$\begin{aligned} y = -2 & \quad y^2 + 5 \\ (-2)^2 + 5 & \\ (2)(-2) + 5 & \\ 9 + 5 & \\ 14 & \end{aligned}$$

$$\begin{aligned} 3(x+y)^4 & \quad x = -2 \\ 3(-2+1)^4 & \quad y = 1 \\ 3(-1)^4 & \\ 3 \cdot 1 & \\ 3 & \end{aligned}$$

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Homework  
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