

Name: Key Class: \_\_\_\_\_

## Practice - Exponents 1

1) Write each as a single power. Then, evaluate each power.

$$\begin{aligned} \text{a) } 4^3 \times 4^4 &= 4^{3+4} \\ &= 4^7 \text{ OR } 16,384 \end{aligned}$$

$$\begin{aligned} \text{b) } 7^2 \times 7^4 &= 7^{2+4} \\ &= 7^6 \text{ OR } 117,649 \end{aligned}$$

$$\begin{aligned} \text{c) } (-3)^5 \times (-3)^2 &= (-3)^7 \\ &= -2187 \end{aligned}$$

$$\begin{aligned} \text{d) } 5^2 \times 5^3 &= 5^5 \\ &= 3125 \end{aligned}$$

$$\begin{aligned} \text{e) } (-6)^3 \times (-6)^3 &= (-6)^6 \\ &= 46,656 \end{aligned}$$

$$\begin{aligned} \text{f) } 8 \times 8^2 &= 8^3 \\ &= 512 \end{aligned}$$

2) Write each as a single power. Then, evaluate each power.

$$\begin{aligned} \text{a) } 5^5 \div 5^3 &= 5^{5-3} \\ &= 5^2 \text{ OR } 25 \end{aligned}$$

$$\begin{aligned} \text{b) } 3^8 \div 3^4 &= 3^{8-4} \\ &= 3^4 \text{ OR } 81 \end{aligned}$$

$$\begin{aligned} \text{c) } (-4)^6 \div (-4)^2 &= (-4)^4 \\ &= 256 \end{aligned}$$

$$\begin{aligned} \text{d) } 7^4 \div 7 &= 7^3 \\ &= 343 \end{aligned}$$

$$\begin{aligned} \text{e) } (-8)^8 \div (-8)^6 &= (-8)^2 \\ &= 64 \end{aligned}$$

$$\begin{aligned} \text{f) } (-2)^6 \div (-2)^5 &= (-2)^1 \\ &= -2 \end{aligned}$$

Review of Product Law & Quotient Law:



Outcome:

N1 - Know the Parts of a Power