Name: _____ Date: _____

7.1 Warm Up

1. Write each expression as a single power. Use exponent laws.

a) $2^3 \times 2^4$

$= 2^{3+4}$

$= 2^{\square}$

b) $5^2 \times 5$

c) $4^4 \times 4^4$

d) $10^2 \times 10^3$

Exponent laws:

$a^m \times a^n = a^{m+n}$ $\quad a^m \div a^n = a^{m-n}$

$(a^m)^n = a^{mn}$ $\quad (a \times b)^m = a^m \times b^m$

$\left(\frac{a}{b}\right)^n = \frac{a^n}{b^n}$ $\quad a^0 = 1,\ a \neq 0$

2. Write each expression as a single power. Use exponent laws.

a) $2^5 \div 2^3$

$= 2^{5-3}$

$= 2^{\square}$

b) $4^4 \div 4^4$

c) $\frac{5^6}{5^3}$

d) $\frac{7^5}{7}$

3. Divide.

$\oplus \div \oplus = \oplus$ $\quad \ominus \div \ominus = \oplus$

$\oplus \div \ominus = \ominus$ $\quad \ominus \div \oplus = \ominus$

a) $\frac{18}{3} =$ _____

b) $\frac{-20}{5} =$ _____

c) $\frac{21}{-7} =$ _____

d) $\frac{-36}{-9} =$ _____

4. Multiply.

$\oplus \times \oplus = \oplus$ $\quad \ominus \times \ominus = \oplus$

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a) $(-3)(10) =$ _____

b) $(6)(7) =$ _____

c) $(-5)(-8) =$ _____

d) $(9)(-4) =$ _____