Additional Expressions Practice

Name: _____   Date: _____

Question 1

Simplify if possible, then evaluate

I. $(7 + x) + 3$ $x = 4$

VI. $\dfrac{x}{7} - \dfrac{4}{x}$ $x = 2$

II. $9x + 3y$ $x = 4 \quad y = 5$

VII. $\dfrac{3}{x} \cdot \dfrac{y}{7}$ $x = 9 \quad y = 8$

III. $5 + x * y$ $x = 9 \quad y = 3$

VIII. $\dfrac{3x}{2y} \div \dfrac{4x}{7y}$ $x = 9 \quad y = 8$

IV. $9(7x)$ $x = 2$

IX. $\dfrac{3x}{2y} \cdot \dfrac{4x}{7y}$ $x = 9 \quad y = 8$

V. $\dfrac{11}{x} - \dfrac{4}{x}$ $x = 7$

X. $|x|$ $x = -8$

Additional Expressions Practice

Name: **Key**   Date: _____

Question 1

Simplify if possible, then evaluate

I. $(7 + x) + 3$ $x = 4$

$x + 10 \longrightarrow 4 + 10 \longrightarrow 14$

VI. $\dfrac{x}{7} - \dfrac{4}{x}$ $x = 2$

$\dfrac{x}{7} \cdot \dfrac{x}{x} - \dfrac{4}{x} \cdot \dfrac{7}{7} \to \dfrac{x^2 - 28}{7x} \to \dfrac{(2)^2 - 28}{7(2)}$

$\dfrac{-12}{7} \leftarrow \dfrac{-24}{14} \leftarrow \dfrac{4 - 28}{14}$

II. $9x + 3y$ $x = 4 \quad y = 5$

$9(4) + 3(5) \longrightarrow 36 + 15 \longrightarrow 51$

VII. $\dfrac{3}{x} \cdot \dfrac{y}{7}$ $x = 9 \quad y = 8$

$\dfrac{3y}{7x} \longrightarrow \dfrac{3(8)}{7(9)} \longrightarrow \dfrac{24}{63} \longrightarrow \dfrac{8}{21}$

III. $5 + x * y$ $x = 9 \quad y = 3$

$5 + 9 * 3 \longrightarrow 5 + 27 \longrightarrow 32$

VIII. $\dfrac{3x}{2y} \div \dfrac{4x}{7y}$ $x = 9 \quad y = 8$

$\dfrac{3x}{2y} \cdot \dfrac{7y}{4x} \longrightarrow \dfrac{3}{2} \cdot \dfrac{7}{4} \longrightarrow \dfrac{21}{8}$

$\dfrac{3(9)}{2(8)} \cdot \dfrac{7(8)}{4(9)} \to \dfrac{27}{16} \cdot \dfrac{56}{36} \to \dfrac{1,512}{576} \to \dfrac{21}{8}$

IV. $9(7x)$ $x = 2$

$63(x) \longrightarrow 63(2) \longrightarrow 126$

IX. $\dfrac{3x}{2y} \cdot \dfrac{4x}{7y}$ $x = 9 \quad y = 8$

$\dfrac{3x}{2y} \cdot \dfrac{4x}{7y} \to \dfrac{12x^2}{14y^2} \to \dfrac{6x^2}{7y^2} \to \dfrac{6(9)^2}{7(8)^2} \to \dfrac{486}{448}$

$\dfrac{243}{224}$

V. $\dfrac{11}{x} - \dfrac{4}{x}$ $x = 7$

$\dfrac{11}{x} - \dfrac{4}{x} \longrightarrow \dfrac{7}{x} \longrightarrow \dfrac{7}{7}$

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X. $|x|$ $x = -8$

$|-8| \longrightarrow 8$