

Additional Expressions Practice

Name: _____

Date: _____

Question 1

Simplify if possible, then evaluate

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

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

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

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

III. $5 + xy$ $x = 9$ $y = 3$

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

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

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

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

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

Additional Expressions Practice

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Question 1

Simplify if possible, then evaluate

I. $(7 + x) + 3$ $x = 4$
 $x + 10 \longrightarrow 4 + 10 \longrightarrow 14$

VI. $\frac{x}{7} - \frac{4}{x}$ $x = 2$
 $\frac{x}{7} \cdot \frac{x}{x} - \frac{4}{x} \cdot \frac{7}{7} \rightarrow \frac{x^2 - 28}{7x} \rightarrow \frac{(2)^2 - 28}{7(2)}$
 $\downarrow$
 $\frac{-12}{7} \leftarrow \frac{-24}{14} \leftarrow \frac{4 - 28}{14}$

II. $9x + 3y$ $x = 4$ $y = 5$
 $9(4) + 3(5) \longrightarrow 36 + 15 \longrightarrow 51$

VII. $\frac{3}{x} \cdot \frac{y}{7}$ $x = 9$ $y = 8$
 $\frac{3y}{7x} \longrightarrow \frac{3(8)}{7(9)} \longrightarrow \frac{24}{63} \longrightarrow \frac{8}{21}$

III. $5 + xy$ $x = 9$ $y = 3$
 $5 + 9 * 3 \longrightarrow 5 + 27 \longrightarrow 32$

VIII. $\frac{3x}{2y} \div \frac{4x}{7y}$ $x = 9$ $y = 8$
 $\frac{3x}{2y} \cdot \frac{7y}{4x} \longrightarrow \frac{3}{2} \cdot \frac{7}{4} \longrightarrow \frac{21}{8}$
 $\frac{3(9)}{2(8)} \cdot \frac{7(8)}{4(9)} \rightarrow \frac{27}{16} \cdot \frac{56}{36} \rightarrow \frac{1,512}{576} \rightarrow \frac{21}{8}$

IV. $9(7x)$ $x = 2$
 $63(x) \longrightarrow 63(2) \longrightarrow 126$

IX. $\frac{3x}{2y} \cdot \frac{4x}{7y}$ $x = 9$ $y = 8$
 $\frac{3x}{2y} \cdot \frac{4x}{7y} \rightarrow \frac{12x^2}{14y^2} \rightarrow \frac{6x^2}{7y^2} \rightarrow \frac{6(9)^2}{7(8)^2} \rightarrow \frac{486}{448}$
 $\downarrow$
 $\frac{243}{224}$

V. $\frac{11}{x} - \frac{4}{x}$ $x = 7$
 $\frac{11}{x} - \frac{4}{x} \longrightarrow \frac{7}{x} \longrightarrow \frac{7}{7}$
 $\downarrow$
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X. $|x|$ $x = -8$
 $|-8| \longrightarrow 8$