

Day 4 – Simplifying Algebraic Expressions: Distributing Practice

1. Simplify each expression.

a. $3(2x - 4) + 2x$

$$\underline{6x} - 12 + \underline{2x}$$

$$\boxed{8x - 12}$$

b. $-2(8y - 4) + 9y + 6$

$$\underline{-16y} + \underline{8} - \underline{9y} + \underline{6}$$

$$\boxed{-7y + 14}$$

c. $\frac{13 + 2(7x - 3)}{7}$

$$\frac{\underline{13} + \underline{14x} - \underline{6}}{7}$$

$$\frac{7 + 14x}{7}$$

$$\frac{7}{7} + \frac{14x}{7}$$

$$\boxed{1 + 2x}$$

d. $-(12 - 4x) + 8(10 - x)$

$$\underline{-12} + \underline{4x} + \underline{80} - \underline{8x}$$

$$\boxed{-4x + 68}$$

e. $7(2x - 4) - (10 - 3x)$

$$\underline{14x} - \underline{28} - \underline{10} + \underline{3x}$$

$$\boxed{17x - 38}$$

f. $\frac{6x + 9}{3} - 5 + 4(-x - 3)$

$$\frac{6x}{3} + \frac{9}{3} - 5 - 4x - 12$$

$$\underline{2x} + \underline{3} - \underline{5} - \underline{4x} - \underline{12}$$

$$\boxed{-2x - 14}$$

2. Stretch your thinking - Simplify the following expression: $5(x - 4) - (2x - 7) + x - 2(x + 3)$

$$\underline{5x} - \underline{20} - \underline{2x} + \underline{7} + \underline{x} - \underline{2x} - \underline{6}$$

$$\boxed{2x - 19}$$