

Day 4 – Simplifying Expressions: Distributive Property Notes

DISTRIBUTIVE PROPERTY STATES....

$$a(b+c) = ab+ac$$

$$1. \overbrace{5(x+2)}$$

$$5x+10$$

$$2. \overbrace{-3(x-4)}$$

$$-3x+12$$

$$3. \overbrace{-6(-2x-3)}$$

$$12x+18$$

$$4. 4x - \overbrace{5(x-1)}$$

$$\underline{4x - 5x + 5}$$

$$\underline{-x + 5}$$

$$5. -2(\overbrace{4+x}) + 4(\overbrace{2-8x}) + 5$$

$$\underline{-8 - 2x + 8 - 32x + 5}$$

$$\underline{-34x + 5}$$

$$6. 2(\overbrace{3+x}) - 3(\overbrace{1-4x}) + 5$$

$$\underline{6 + 2x - 3 + 12x + 5}$$

$$14x + 8$$

$$7. \frac{5 - \overbrace{4(6x+2)}}{3}$$

$$\underline{5 - 24x - 8}$$

$$\frac{-3 - 24x}{3}$$

$$\underline{\underline{\frac{-3}{3} - \frac{24x}{3}}}$$

$$\underline{\underline{-1 - 8x}}$$

$$8. \frac{\overbrace{7(12+8x)} - 20}{4}$$

$$\underline{84 + 56x - 20}$$

$$\underline{64 + 56x}$$

$$\frac{64}{4} + \frac{56x}{4}$$

$$\underline{\underline{16 + 14x}}$$

$$9. \frac{\overbrace{8x+3(7+x)} + 9x - 1}{10}$$

$$\underline{8x + 21 + 3x + 9x - 1}$$

$$\frac{20x + 20}{10}$$

$$\frac{20x}{10} + \frac{20}{10}$$

$$\underline{\underline{2x + 2}}$$

Connect: Take the simplified expression from number 6 and answer the following questions:

- a. Identify all the terms: 14x, 8 b. Identify all the variables: x
- c. Identify all the coefficients: 14 d. Identify all the constants: 8