

**ALGEBRA 2**  
**PROBLEM SET #2**

DUE DATE: AUGUST 22, 2023

**Question 1.** Consider the two following quantities:

**Option A**

$$4\left(\frac{1}{2}x + 2y\right)$$

**Option B**

$$2x + 8y$$

Which of the following is **True**?

- (a) Option  $A$  is larger than Option  $B$ .
- (b) Option  $B$  is larger than Option  $A$ .
- (c) Option  $A$  and  $B$  are equal in value.
- (d) Not enough information was given.

**Question 2.** Solve for all values of  $x$  that will make the following equation true:

$$5 - \frac{x}{7} = 2.$$

Hint: recall that  $5 = \frac{5}{1}$  and to create common denominator before trying reverse-PEMDAS.

**Question 3.** For each of the following statements, mark the statement **True**, **False**, or **Sometimes True**.

- (a)  $6x = x(4 + 2)$
- (b)  $6x + 4y = 4x + 6y$
- (c)  $6x + 4y = 6x + 4y$
- (d)  $6 + 4 = 6x + 4x$
- (e)  $(x + 3)(x + 2) = x^2 + 5x + 6$
- (f)  $(x + 3)2 = x(x + 3)$