Domain #4: Expressions and Equations

(Relevant Units: Unit 2 – Expressions of Integers,
Unit 6 – Equations and Inequalities,   Unit 10 - Algebraic Expressions)

1.

Select **all** equations that have $x = 3$ as a solution.

☐ $x + 7 = 10$

☐ $3 + x = 3$

☐ $x \cdot 3 = 1$

☐ $4 \cdot x = 12$

2.

Ms. Stone buys groceries for a total of $45.32. She now has $32.25 left.

Which equation could be used to find out how much money Ms. Stone had before she bought the groceries?

Ⓐ $\$45.32x = \$32.25$

Ⓑ $x - \$45.32 = \$32.25$

Ⓒ $x + \$45.32 = \$32.25$

Ⓓ $x + \$32.25 = \$45.32$

3.

In the morning, Emily studied 40 minutes for a math exam. Later that evening, Emily studied for x more minutes.
Enter an **equation** that represents the total number of minutes, y, Emily studied for the math exam.

1	2	3	x	y
4	5	6	+	-	*	÷
7	8	9	<	=	>
0	.	-				

4.

Select **all** the expressions that are equivalent to
$8(t + 4)$.

☐ $2(4t + 2)$

☐ $8t + 32$

☐ $4t + 4 + 4t$

☐ $(8 + t) + (8 + 4)$

☐ $(8 \times t) + (8 \times 4)$

5.

The formula $C = \frac{5}{9}(F - 32)$ is used to convert the temperature in degrees Fahrenheit (F) to the temperature in degrees Celsius (C).

Enter the temperature in degrees Celsius (C) equal to 113 degrees Fahrenheit (F).

1	2	3
4	5	6
7	8	9
0	.	-