ASSIGNMENT - 3

QUADRATIC EQUATIONS **NO. OF QUESTION - 10**

1. $\frac{1}{z+2}+\frac{1}{z-2}=\frac{4}{(z+2)(z-2)}$ Given the equation above what is the value of z ?

2. If $(x+3)^2=(x-2)^2$, what is the value of $2x$?

3. In the expression $x^2 + kx + 12$, k is a negative integer. Which of the following is a possible value of k ?

(A) –13

(B) –12

(C) –6

(D) 7

4. If $2x - 3y = 5$, what is the value of $4x^2 - 12xy + 9y^2$?

(A) 5

(B) 12

(C) 25

(D) 100

5. If $3-\frac{3}{x}=x+7$, and $x \neq 0$, which of the following is a possible value for x ?

(A) –7

(B) –1

(C) 1

(D) 3

6. What is the product of all the solutions to the equation $3z^2 - 12z + 6 = 0$?

(A) 2

(B) 3

(C) 4

(D) –2

7. For the equation $mx - 5 = x + 3$, the value of m is -3. What is the solution set for the equation?

(A) {–3, 3}

(B) {–2}

(C) {–2, –7}

(D) {3, 6}

8.

$$rx^2 = \frac{1}{2}x + 3$$

A quadratic equation is provided above, where r and s are constants. What are the solutions for x ?

(A) $x = \frac{1}{2sr} \pm \frac{\sqrt{\frac{1}{s^2} + 12r}}{2r}$

(B) $x = \frac{1}{2sr} \pm \frac{\sqrt{\frac{1}{s^2} - 12r}}{2r}$

(C) $x = \frac{1}{2sr} \pm \frac{\sqrt{-\frac{1}{s^2} - 12r}}{2sr}$

(D) $x = \frac{s}{2r} \pm \frac{\sqrt{s^2 - 12r}}{2sr}$

9. Work these questions using your calculator as needed and applying the skills you've learned so far.

(A) $\frac{1}{4}$

(B) $\frac{1}{2}$

(C) 0

(D) 2

10. If $x^2 - 5x + 6x^2 + 6x - 16 = x^2 - 2x - 3 - 6$, then which of the following could be a value of x ?

(A) –7

(B) –5

(C) 0

(D) 6