NAME:

DATE:

A2.Q2.BERMELLEMBO: SOLVING QUADRATIC EQUATIONS BY MIXED METHODS

DAY EQ5
(EQUATIONS)

REVIEW

Solve the equation by using the **factoring method (EQ1)**. BOX YOUR ANSWER

1. $2x^2 - 3x = 5$

ALSO CIRCLE: A. TWO REAL SOLUTIONS B. ONE REAL REPEAT SOLUTION C. NO REAL SOLUTIONS

Solve the equation by using the **graphing method (EQ3)**. BOX YOUR ANSWER

2. $x^2 + x = 6$ *Be sure to draw a quick sketch to support your answer(s).*

ALSO CIRCLE: A. TWO REAL SOLUTIONS B. ONE REAL REPEAT SOLUTION C. NO REAL SOLUTIONS

Solve the equation by using the **formula method (EQ2)**. BOX YOUR ANSWER

3. $5x^2 = 14x + 3$

ALSO CIRCLE: A. TWO REAL SOLUTIONS B. ONE REAL REPEAT SOLUTION C. NO REAL SOLUTIONS

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

(EQ4)

QUADRATIC FORMULA: $x = \dfrac{-b \pm \sqrt{b^2 - 4ac}}{2a}$

4. GIVEN: $3x^2 + 7 = 5x$

A. Find the value of the discriminant.

B. Use the value of the discriminant to determine the number and type of solutions.

C. Solve the given equation using the quadratic formula. Express your final answer in simplified form (no decimals).

Solve the equation by using the **factoring method**. BOX YOUR ANSWER

5. $3x^2 + 10x - 8 = 0$

ALSO CIRCLE: A. TWO REAL SOLUTIONS B. ONE REAL REPEAT SOLUTION C. TWO IMAGINARY SOLUTIONS

Solve the equation by using the **graphing method**. BOX YOUR ANSWER

6. $x^2 + 8x + 16 = 0$ *Be sure to draw a quick sketch to support your answer(s).*

ALSO CIRCLE: A. TWO REAL SOLUTIONS B. ONE REAL REPEAT SOLUTION C. TWO IMAGINARY SOLUTIONS

Solve the equation by using the **formula method**. BOX YOUR ANSWER

7. $9x^2 + 6x + 1 = 0$ (If there are two imaginary solutions, write your answers with *i*)

ALSO CIRCLE: A. TWO REAL SOLUTIONS B. ONE REAL REPEAT SOLUTION C. TWO IMAGINARY SOLUTIONS

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

8. $3x^2 - x + 3 = 0$ (If there are two imaginary solutions, write your answers with *i*)

ALSO CIRCLE: A. TWO REAL SOLUTIONS B. ONE REAL REPEAT SOLUTION C. TWO IMAGINARY SOLUTIONS

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

9. Simplify the expression that includes the imaginary number ***i***

A. $12i(5i)$

B. $(3i+4)(2i+7)$