NAME:_____

P.I. A2.A.24: Know and apply the technique of completing the square

1. Solve by completing the square:
   $2x^2 - 4x - 3 = 0$

   [A] $\dfrac{2 \pm \sqrt{10}}{2}$ [B] $1 \pm \sqrt{10}$

   [C] $\dfrac{-2 \pm \sqrt{10}}{2}$ [D] $-1 \pm \sqrt{10}$

2. Solve by completing the square:
   $4x^2 + 2x - 5 = 0$

   [A] $\dfrac{1 \pm 2\sqrt{21}}{4}$ [B] $\dfrac{-1 \pm \sqrt{21}}{4}$

   [C] $\dfrac{-1 \pm 2\sqrt{21}}{4}$ [D] $\dfrac{1 \pm \sqrt{21}}{4}$

3. Solve by completing the square:
   $x^2 - 6x - 4 = 0$

   [A] $3 \pm \sqrt{13}$ [B] $-3 \pm 2\sqrt{13}$

   [C] $3 \pm 2\sqrt{13}$ [D] $-3 \pm \sqrt{13}$

4. Solve by completing the square:
   $3x^2 + 4x - 6 = 0$

   [A] $\dfrac{2 \pm 2\sqrt{22}}{3}$ [B] $\dfrac{-2 \pm \sqrt{22}}{3}$

   [C] $\dfrac{2 \pm \sqrt{22}}{3}$ [D] $\dfrac{-2 \pm 2\sqrt{22}}{3}$

5. Solve by completing the square:
   $x^2 - 8x - 1 = 0$

   [A] $4 \pm \sqrt{17}$ [B] $-4 \pm \sqrt{17}$

   [C] $4 \pm 2\sqrt{17}$ [D] $-4 \pm 2\sqrt{17}$

6. Solve by completing the square:
   $4x^2 + 8x - 2 = 0$

   [A] $-1 \pm \sqrt{6}$ [B] $1 \pm \sqrt{6}$

   [C] $\dfrac{2 \pm \sqrt{6}}{2}$ [D] $\dfrac{-2 \pm \sqrt{6}}{2}$

7. Solve by completing the square:
   $4x^2 - 2x - 3 = 0$

   [A] $\dfrac{-1 \pm \sqrt{13}}{4}$ [B] $\dfrac{1 \pm \sqrt{13}}{4}$

   [C] $\dfrac{1 \pm 2\sqrt{13}}{4}$ [D] $\dfrac{-1 \pm 2\sqrt{13}}{4}$

8. Solve by completing the square:
   $3x^2 + 6x - 5 = 0$

   [A] $\dfrac{-3 \pm 2\sqrt{6}}{3}$ [B] $\dfrac{3 \pm 4\sqrt{6}}{3}$

   [C] $\dfrac{3 \pm 2\sqrt{6}}{3}$ [D] $\dfrac{-3 \pm 4\sqrt{6}}{3}$

9. Solve by completing the square:
   $2x^2 - 6x - 1 = 0$

   [A] $\dfrac{3 \pm 2\sqrt{11}}{2}$ [B] $\dfrac{3 \pm \sqrt{11}}{2}$

   [C] $\dfrac{-3 \pm 2\sqrt{11}}{2}$ [D] $\dfrac{-3 \pm \sqrt{11}}{2}$

10. Solve by completing the square:
    $2x^2 + 8x - 4 = 0$

    [A] $-2 \pm \sqrt{6}$ [B] $-2 \pm 2\sqrt{6}$

    [C] $2 \pm 2\sqrt{6}$ [D] $2 \pm \sqrt{6}$

[1] A _____

[2] B _____

[3] A _____

[4] B _____

[5] A _____

[6] D _____

[7] B _____

[8] A _____

[9] B _____

[10] A _____