

NAME: \_\_\_\_\_

*P.I. A2.A.25: Solve quadratic equations, using the quadratic formula*

Solve:

1.  $4x^2 - 6x - 5 = 0$

[A]  $\frac{3 + 2\sqrt{29}}{4}, \frac{3 - 2\sqrt{29}}{4}$

[B]  $\frac{3 + \sqrt{29}}{4}, \frac{3 - \sqrt{29}}{4}$

[C]  $\frac{-3 + 2\sqrt{29}}{4}, \frac{-3 - 2\sqrt{29}}{4}$

[D]  $\frac{-3 + \sqrt{29}}{4}, \frac{-3 - \sqrt{29}}{4}$

2.  $3x^2 + 2x - 3 = 0$

[A]  $\frac{1 + 2\sqrt{10}}{3}, \frac{1 - 2\sqrt{10}}{3}$

[B]  $\frac{-1 + 2\sqrt{10}}{3}, \frac{-1 - 2\sqrt{10}}{3}$

[C]  $\frac{1 + \sqrt{10}}{3}, \frac{1 - \sqrt{10}}{3}$

[D]  $\frac{-1 + \sqrt{10}}{3}, \frac{-1 - \sqrt{10}}{3}$

3.  $x^2 = 5x + 4$

[A]  $5 + \sqrt{41}, 5 - \sqrt{41}$

[B]  $\frac{5 + \sqrt{41}}{2}, \frac{5 - \sqrt{41}}{2}$

[C]  $\frac{-5 + \sqrt{41}}{2}, \frac{-5 - \sqrt{41}}{2}$

[D]  $-5 + \sqrt{41}, -5 - \sqrt{41}$

4.  $x^2 = -5x + 2$

[A]  $-5 + \sqrt{33}, -5 - \sqrt{33}$

[B]  $\frac{-5 + \sqrt{33}}{2}, \frac{-5 - \sqrt{33}}{2}$

[C]  $\frac{5 + \sqrt{33}}{2}, \frac{5 - \sqrt{33}}{2}$

[D]  $5 + \sqrt{33}, 5 - \sqrt{33}$

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

[A]  $5 + \sqrt{29}, 5 - \sqrt{29}$

[B]  $-5 + \sqrt{29}, -5 - \sqrt{29}$

[C]  $\frac{5 + \sqrt{29}}{2}, \frac{5 - \sqrt{29}}{2}$

[D]  $\frac{-5 + \sqrt{29}}{2}, \frac{-5 - \sqrt{29}}{2}$

6. Which expression could you use to solve  $4x^2 + 3x - 5 = 0$ ?

[A]  $\frac{3 \pm \sqrt{3^2 - 4(4)(-5)}}{2(4)}$

[B]  $\frac{-3 \pm \sqrt{4^2 - 4(4)(5)}}{2(4)}$

[C]  $\frac{-4 \pm \sqrt{4^2 - 4(3)(-5)}}{2(3)}$

[D]  $\frac{4 \pm \sqrt{4^2 - 4(3)(-5)}}{2(3)}$

[E]  $\frac{-3 \pm \sqrt{3^2 - 4(4)(-5)}}{2(4)}$

[1] B

[2] D

[3] B

[4] B

[5] D

[6] E