

3.11.16

Please do not ask about grades. If you have a question come after school or email me please.

What are the solutions to

$$3x^2 + 12x + 6 = 0?$$

A) $x = 2 \pm \sqrt{2}$

~~B) $x = -2 \pm \frac{\sqrt{30}}{3}$~~

~~C) $x = -6 \pm \sqrt{2}$~~

~~D) $x = -6 \pm 6\sqrt{2}$~~

$$3(x^2 + 4x + 2) = 0$$

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

$$x = \frac{-4 \pm \sqrt{4^2 - 4(1)(2)}}{2(1)}$$

$$x = \frac{-4 \pm \sqrt{16 - 8}}{2}$$

$$x = \frac{-4 \pm \sqrt{8}}{2}$$

$$\begin{aligned} &\sqrt{8} \\ &\sqrt{4 \cdot 2} \\ &2\sqrt{2} \end{aligned}$$

$$x = \frac{-4 \pm 2\sqrt{2}}{2}$$

$$x = -2 \pm \sqrt{2}$$

$$x^2 - \frac{k}{2}x = 2p$$

In the quadratic equation above, k and p are constants. What are the solutions for x ?

$$2\left(x^2 - \frac{k}{2}x - 2p = 0\right)$$

$$2x^2 - kx - 4p = 0$$

$$a=2 \quad b=-k \quad c=-4p$$

$$x = \frac{k \pm \sqrt{(-k)^2 - 4(2)(-4p)}}{2(2)}$$

$$x = \frac{k \pm \sqrt{k^2 + 32p}}{4}$$

~~$$A) x = \frac{k}{4} \pm \frac{\sqrt{k^2 + 2p}}{4}$$~~

$$B) x = \frac{k}{4} \pm \frac{\sqrt{k^2 + 32p}}{4}$$

~~$$C) x = \frac{k}{2} \pm \frac{\sqrt{k^2 + 2p}}{2}$$~~

~~$$D) x = \frac{k}{2} \pm \frac{\sqrt{k^2 + 32p}}{4}$$~~