

Solve using quadratic Formula



$$y = 9 - 3x^2$$

$$-3x^2 + 9 = 0$$

$$a = -3 \quad b = 0 \quad c = 9$$

$$x = \frac{-0 \pm \sqrt{(0)^2 - 4(-3)(9)}}{2(-3)}$$

$$x = \frac{0 \pm \sqrt{108}}{-6}$$

$$\begin{aligned} &4 \cdot 27 \\ &\underbrace{4 \cdot 9 \cdot 3} \\ &36 \cdot 3 \end{aligned}$$

$$x = \frac{\pm \sqrt{108}}{-6} \quad \sqrt{108} = \underbrace{36}_{(36)} \cdot 3$$

$$x = \frac{\pm 6\sqrt{3}}{-6}$$

$$x = \pm \sqrt{3}$$



Solve using quadratic Formula

$$y = 7x^2 + 6x - 5$$

$$x = \frac{-6 \pm \sqrt{(6)^2 - 4(7)(-5)}}{2(7)}$$

$$x = \frac{-6 \pm \sqrt{176}}{14}$$

$$\frac{-6 \pm \sqrt{16 \cdot 11}}{14}$$

$$\frac{-6 \pm 4\sqrt{11}}{14}$$

$$x = \frac{-3 \pm 2\sqrt{11}}{7}$$

$$\begin{array}{r} 4 \overline{) 176} \\ \underline{44} \\ 11 \end{array}$$

$$16 \cdot 11$$

Solve using quadratic Formula

$$2x^2 = \cancel{3x} - 1$$

-3x -3x

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

+1 +1

$$2x^2 - 3x + 1 = 0$$

$$\frac{-(-3) \pm \sqrt{(-3)^2 - 4(2)(1)}}{2(2)}$$

$$= \frac{3 \pm \sqrt{1}}{4} = \frac{3 \pm 1}{4}$$

$$\frac{3+1}{4} = \frac{4}{4} = 1$$

$$\frac{3-1}{4} = \frac{2}{4} = \frac{1}{2}$$



$$8n^2 + 12 = -12n$$

+12n +12n

$$8n^2 + 12n + 12 = 0$$

$$a=8 \quad b=12 \quad c=12$$

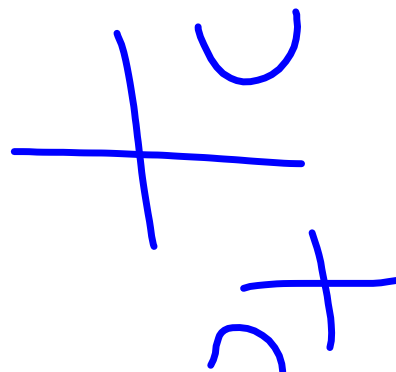
$$x = \frac{-12 \pm \sqrt{(12)^2 - 4(8)(12)}}{2(8)}$$

$$x = \frac{-12 \pm \sqrt{-240}}{16}$$

$$\sqrt{16}15 \quad \begin{array}{r} 4 \overline{)240} \\ \underline{4 \quad 60} \\ 16 \cdot 15 \end{array}$$

$$x = \frac{-12 \pm 4\sqrt{15}}{16}$$

$$x = \frac{-3 \pm \sqrt{15}}{4}$$



$$6x^2 = -3x - 1$$

$$6x^2 = -3x - 1$$

$$6x^2 + 3x + 1 = 0$$

$$x = \frac{-3 \pm \sqrt{(3)^2 - 4(6)(1)}}{2(6)}$$

$$x = \frac{-3 \pm \sqrt{-15}}{12}$$

$$x = \frac{-3 \pm i\sqrt{15}}{12}$$

~~$$x = \frac{-3 \pm \sqrt{15}}{12}$$~~