

Attendance

Solve

$$3(x + 2)^2 = 27$$

$$2(\boxed{x} - 3)^2 = 5$$

$$\frac{2(x-3)^2}{2} = \frac{5}{2}$$

$$\sqrt{(x-3)^2} = \sqrt{\frac{5}{2}}$$

$$x-3 = \frac{\sqrt{5}}{\sqrt{2}} \quad x-3 = \frac{\sqrt{10}}{2} + 3$$

$$x = \boxed{3 + \frac{\sqrt{10}}{2}}$$

$$3(\boxed{x} + 1)^2 + 4 = 1$$

$$\frac{3(x+1)^2}{3} = \frac{-3}{3}$$

$$\sqrt{(x+1)^2} = \pm \sqrt{1}$$

$$x+1 = \pm 1$$

$$\boxed{x = -1 \pm 1}$$

$$x^2 + 4x - 1 = 0$$

Solve
By Completing
the Square

$$x^2 + 4x = 1$$

$$\left(\frac{4}{2}\right)^2 = 2^2$$

$$x^2 + 4x + 4 = 1 + 4$$

$$x^2 + 4x + 4 = 1 + 4$$

$$\sqrt{(x+2)^2} = \sqrt{5}$$

$$x+2 = \pm\sqrt{5}$$

$$x = -2 \pm \sqrt{5}$$

$$x^2 + 5x + 2 = 0$$

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

$$x^2 + 5x + \left(\frac{5}{2}\right)^2 = -2 + \frac{25}{4}$$

$$\sqrt{\left(x + \frac{5}{2}\right)^2} = \sqrt{\frac{17}{4}}$$

$$x + \frac{5}{2} = \pm \frac{\sqrt{17}}{2}$$

$$y = \frac{-5 \pm \sqrt{17}}{2}$$

$$\frac{3x^2}{3} + \frac{6x}{3} - \frac{1}{3} = 0$$

$$\frac{1}{2}(2) = 1^2$$

$$x^2 + 2x - \frac{1}{3} = 0$$

$$x^2 + 2x + 1 = \frac{1}{3} + \frac{3}{3}$$

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

$$x+1 = \frac{\pm 2\sqrt{3}}{3}$$

→

$$x = -1 \pm \frac{2\sqrt{3}}{3}$$

$$\frac{5x^2}{5} - \frac{7x}{5} + \frac{3}{5} = \frac{0}{5}$$

Solve by Completing the Square

$$x^2 - \frac{7}{5}x + \frac{49}{100} = \frac{-40 + 49}{5 \cdot 20} + \frac{49}{100}$$

$$\left\{ \frac{1}{2} \left(-\frac{7}{5} \right) = \left(-\frac{7}{10} \right)^2 \right.$$

$$\sqrt{\left(x - \frac{7}{10} \right)^2} = \frac{\pm \sqrt{11}}{\sqrt{100}}$$

$$x - \frac{7}{10} = \pm \frac{\sqrt{11} i}{10}$$

$$x = \frac{7}{10} \pm \frac{\sqrt{11} i}{10} = \frac{7 \pm \sqrt{11} i}{10}$$

~~$\left(\frac{7 - \sqrt{11} i}{10}, \frac{7 + \sqrt{11} i}{10} \right)$ $\Delta F b i$~~

Solve by the Square
Completing

$$\frac{3x^2}{3} - \frac{2x}{3} - \frac{9}{3} = \frac{0}{3}$$

$$x^2 - \frac{2}{3}x - 3 = 0$$

$$x^2 - \frac{2}{3}x + \frac{1}{9} = 3 + \frac{1}{9}$$

$$\sqrt{\left(x - \frac{1}{3}\right)^2} = \frac{\pm 2\sqrt{28}}{\sqrt{9}} \quad \sqrt{4 \cdot 7} \quad \sqrt{1 \cdot 9}$$

$$x - \frac{1}{3} = \pm \frac{2\sqrt{7}}{3}$$

$$x = \frac{1 \pm 2\sqrt{7}}{3}$$

$$\frac{1}{2} \left(\frac{-2}{3}\right) = \left(\frac{-1}{3}\right)^2$$

$$\frac{3X^2}{3} + \frac{bX}{3} + \frac{5}{3} = \frac{0}{3}$$

Solve for X

$$X^2 + \frac{b}{3}X + \frac{5}{3} = 0$$

$$\frac{1}{2}\left(\frac{b}{3}\right) = \left(\frac{b}{6}\right)^2$$

$$X^2 + \frac{b}{3}X + \frac{b^2}{36} = -\frac{5 \cdot 12}{3 \cdot 12} + \frac{b^2}{36}$$

$$\sqrt{\left(X + \frac{b}{6}\right)^2} = \frac{\pm \sqrt{b^2 - 60}}{\sqrt{36}}$$

$$X + \frac{b}{6} = \frac{\pm \sqrt{b^2 - 60}}{6}$$

$$X = -\frac{b}{6} + \frac{\pm \sqrt{b^2 - 60}}{6} = \frac{-b \pm \sqrt{b^2 - 60}}{6}$$