

Quadratic Formula solved to the end  
Simplify the Expression and find the answers

$$1. x = \frac{-2 \pm 4}{2}$$

$$\frac{-2+4}{2}$$

$$\frac{-2-4}{2}$$

$$\frac{2}{2} = 1$$

$$\frac{-6}{2} = -3$$

$$x = 1$$

$$x = -3$$

$$2. x = \frac{3 \pm \sqrt{0}}{2}$$

$$x = \frac{3 \pm 0}{2}$$

$$x = \frac{3+0}{2} = \frac{3}{2} = 1.5$$

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

$$x = \frac{-6+2}{4} = \frac{-4}{4}$$

$$x = -1$$

$$x = \frac{-6 \pm 2}{4}$$

$$x = \frac{-6-2}{4} = \frac{-8}{4}$$

$$x = -2$$

$$4. x = \frac{4 \pm \sqrt{80}}{2(3)}$$

$$x = \frac{4 \pm 4\sqrt{5}}{6}$$

$$x = \frac{2 \pm 2\sqrt{5}}{3}$$

$$\frac{\sqrt{80}}{\sqrt{16} \cdot \sqrt{5}} = \frac{4\sqrt{5}}{4\sqrt{5}}$$

$$5. x = \frac{-4 \pm \sqrt{64}}{2}$$

$$x = \frac{-4+8}{2} = \frac{4}{2} = 2$$

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

$$x = \frac{-4-8}{2} = \frac{-12}{2} = -6$$

$$6. x = \frac{2 \pm \sqrt{44}}{2(1)}$$

$$x = \frac{2 \pm 2\sqrt{11}}{2}$$

$$x = 1 \pm \sqrt{11}$$

$$\frac{\sqrt{44}}{\sqrt{4} \cdot \sqrt{11}} = \frac{2\sqrt{11}}{2\sqrt{11}}$$

$$7. y = 2x^2 - 3x - 5$$

$$a = 2$$

$$b = -3$$

$$c = -5$$

$$x = \frac{3 \pm \sqrt{49}}{2(2)}$$

$$x = \frac{3 \pm 7}{4}$$

$$x = \frac{3+7}{4} = \frac{10}{4}$$

$$x = \frac{3-7}{4} = \frac{-4}{4}$$

$$x = \frac{5}{2} \text{ or } 2.5$$

$$x = -1$$

$$8. y = 3x^2 + 6x - 8$$

$$y = \frac{-3 \pm \sqrt{132}}{2(3)}$$

$$y = \frac{-3 \pm 2\sqrt{33}}{6}$$

$$\frac{\sqrt{132}}{\sqrt{4} \sqrt{33}} = \frac{2\sqrt{33}}{2\sqrt{33}}$$