

Describe the error in each problem. Fix the error and solve the problem correctly.

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

$$a=1; b=-3; c=2$$

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

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

$$= \frac{-3 \pm \sqrt{9-8}}{2}$$

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

$$= \frac{-3+1}{2} \text{ or } \frac{-3-1}{2}$$

$$= \frac{-2}{2} \text{ or } \frac{-4}{2}$$

$$= -1 \text{ or } -2$$

$$(2) 2x^2 - 9 = 8x$$

$$a=2; \quad b=-9; \quad c=8$$

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

$$= \frac{-(-9) \pm \sqrt{(-9)^2 - 4(2)(8)}}{2(2)}$$

$$= \frac{9 \pm \sqrt{81-64}}{4}$$

$$= \frac{9 \pm \sqrt{17}}{4}$$

$$= 3.28 \text{ or } 1.23$$

$$(3) x^2 + 8 = 10x$$

$$x^2 + 8 = 10x$$

$$\frac{-10x}{-10x} \quad \frac{-10x}{-10x}$$

$$x^2 - 10x + 8 = 0$$

$$a=1; \quad b=-10; \quad c=8$$

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

$$= \frac{-(-10) \pm \sqrt{(-10)^2 - 4(1)(8)}}{2(1)}$$

$$= \frac{10 \pm \sqrt{-100-32}}{2}$$

$$= \frac{10 \pm \sqrt{-132}}{2}$$

$$= \text{no real solution}$$