

Solve the Equation Algebraically

$$2x^2 - 5x + 2 = (x - 3)(x - 2) + 3x$$

$$x(2x - 5) = 12$$

$$x(x + 7) = 14$$

$$x^2 - 3x + 4 = 2x^2 - 7x - 8$$

$$x + 1 - 2\sqrt{x + 4} = 0$$