8. Solve the following equation using one of the following methods: quadratic formula, factoring, taking square roots, completing the square (don't forget to try GCF first).

a. $(p-6)^2 = 9$

b. $x^2 - 11x + 19 = -5$

c. $n^2 + 8n = 3n$

d. $x^2 + 4x + 6 = 0$

e. $4x^2 - 2x = 5$

f. $3x^2 + 6 = 12$

9. How many times does each of the following functions intersect the x-axis?

a. $y = 3x^2 + \frac{2}{3}x - \frac{1}{3}$

b. $f(x) = \frac{4}{3}x^2 - 4x + 3$

c. $y = 2x^2 - \frac{1}{2}x + \frac{3}{2}$

SLOT: RATIONAL FUNCTIONS (CH 9)

1. Simplify the following rational expression:

$$\frac{5p+12}{3p+5} + \frac{13p+18}{3p+5}$$

2. Solve the following rational equation, show your steps and indicate any extraneous solutions.

$$\frac{4}{x} = \frac{-3}{x+8}$$

3. Solve the following rational equation, show your steps and indicate any extraneous solutions.

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

4. Solve for x.

$$-\frac{12}{x} + \frac{24}{x-2} = 4$$