Secondary Math III
HW 14-4 Solving Rational Equations

Name:_____
Period:_____

Book Section 9-3

Solve each rational equation algebraically:

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

2. $\frac{x}{2x-10} = 3$

3. $\frac{9}{4x} - \frac{5}{6} = -\frac{13}{12x}$

4. $\frac{3}{x+1} + \frac{2}{7} = 2$

5. $\frac{56}{x^2-2x-15} - \frac{6}{x+3} = \frac{7}{x-5}$

7. $\frac{5}{2x+6} - \frac{1}{6} = \frac{2}{x+4}$

8. $\dfrac{5}{x^2 - 3x + 2} - \dfrac{1}{x - 2} = \dfrac{x + 6}{3x - 3}$

15. The time required to deliver and install a computer network at a customer's location is $t = 5 + \frac{2d}{r}$, where t is time in hours, d is the distance (in miles), from the warehouse to the customer's location, and r is the average speed of the delivery truck. If it takes 8.2 hours for an employee to deliver and install a network for a customer located 80 miles from the warehouse, what is the average speed of the delivery truck?

16. **Art** A glassblower can produce several sets of simple glasses in about 3 hours. When the glassblower works with an apprentice, the job takes about 2 hours. How long would it take the apprentice to make the same number of sets of glasses when working alone?

HW 5-3 Selected Answers

1. x = -3

3. x = 4

5. The solution x = 5 is extraneous, so no solution.

16. Set up: $\frac{1}{3}(2)+\frac{1}{t}(2)=1$