## **TEKS** 2A.10.D



## LESSON Practice B

## Solving Rational Equations and Inequalities

Solve each equation.

1. 
$$x - \frac{6}{x} = 5$$

**2.** 
$$\frac{15}{4} = \frac{6}{x} + 3$$

**3.** 
$$x = \frac{3}{x} + 2$$

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

Solve each inequality by using a graphing calculator and a table.

**5.** 
$$\frac{6}{x+1} < -3$$

**6.** 
$$\frac{x}{x-2} \ge 0$$

7. 
$$\frac{2x}{x+5} \le 0$$

**8.** 
$$\frac{-x}{x-3} \ge 0$$

Solve each inequality algebraically.

**9.** 
$$\frac{12}{x+4} \le 4$$

**10.** 
$$\frac{7}{x+3} < -5$$

**11.** 
$$\frac{x}{x-2} > 9$$

**12.** 
$$\frac{2x}{x-5} \ge 3$$

Solve.

**13.** The time required to deliver and install a computer at a customer's location is  $t = 4 + \frac{d}{r}$ , 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 6.2 hours for the employee to deliver and install a computer for a customer located 100 miles from the warehouse, what is the average speed of the delivery truck?