Name _____

Date _____ Period _____

1. A skier travels x miles per hour when there is no wind. On a particularly windy day, the skier decided to travel 5 miles towards a pond. Going there, the skier's natural speed was increased by 6 miles per hour. On the skier's return from the pond, his natural speed was decreased by 6 miles per hour.

      (a) If the total trip took 2 hours, what would the skier's speed have been without wind?

      (b) What was the wind speed that day? Explain how you know.

2. Solve the rational inequalities. Write your answer in interval notation.

    a. $\dfrac{x+4}{x} > -2$

    b. $\dfrac{10x}{x-2} < 4$

3. Solve the equation. Check for extraneous solutions.

$$\dfrac{x}{x+4} + \dfrac{x}{2} = \dfrac{2x}{2x+8}$$