

Name: _____

Solving Inequalities Using Multiplication or Division

Write the verbal sentence as an inequality. Then solve the inequality.

- 1) Five times a number is at least 45.
- 2) A number divided by 4 is at most 8.
- 3) A number divided by -3 is less than 6.
- 4) Seven times a number is greater than -35 .
- 5) A number divided by 2 is no more than 5.
- 6) Three times a number is more than -18 .

- 7) You need to read at least 105 pages of a book for your English class in the next 7 days. How many pages should you read each day?

- 8) You want to bike at least 45 miles as part of a training program. If you bike for 5 hours, what average speeds will allow you to meet your goal?

- 9) Filling the bathtub uses 60 gallons of water. Taking a shower uses 2 gallons per minute. How many minutes can you be in the shower and still use less water than you would by filling the bathtub?

- 10) A herd of caribou can migrate as far as 36 miles in 24 hours.
 - a. Write and solve an inequality to find the average speeds (in miles per hour) at which caribou can migrate.
 - b. A caribou herd has been moving for three days. On a number line, graph the distances (in miles) the herd could have traveled.

- 11) Your parents have decided to install new carpeting in your room, which is rectangular and measures 10 feet by 12 feet. They want to spend at most \$200 on the carpeting. At the flooring store, carpeting is sold by the square foot. How much money will your parents spend per square foot for carpeting?