Name: _____

Solving Inequalities Using Multiplication or Division

Solve the inequality. Graph and check your solution.

1) $\dfrac{v}{-2} < {}^-8$

2) $8b > 32$

3) $3r \geq 21$

4) ${}^-6s \leq 45$

5) $4w \leq 68$

6) ${}^-16y > 48$

7) $6q > {}^-84$

8) $12x \geq {}^-60$

9) $4m < {}^-60$

10) ${}^-16x \geq 96$

11) $\dfrac{p}{7} > 6$

12) $\dfrac{t}{4} \leq {}^-9$

13) $5a < {}^-35$

14) $\dfrac{u}{6} \geq 3$

15) $\dfrac{a}{2} < {}^-9$

16) $\dfrac{d}{-11} \leq 6$

17) $\dfrac{b}{7} > 7$

18) $\dfrac{v}{5} > {}^-2$

19) $\dfrac{h}{-6} \leq 13$

20) $\dfrac{n}{-3} \geq {}^-5$

21) $\dfrac{t}{9} < {}^-12$

22) $\dfrac{c}{8} \geq 3$

23) You want to use in-line skates. You can either rent in-line skates for $12 per day or purchase them for $60. How many times will you have to use the in-line skates in order for the cost of purchasing them to be less than the total cost of renting them?

24) The weight limit for freight loaded onto a freight elevator is 7500 pounds. The elevator is being used to move 50 heavy crates. Each crate weighs 375 pounds.

a. Write and solve an inequality to determine how many crates you can move in one trip on the elevator. Assume that weight is the only factor affecting how many crates you can move at one time.

b. How many times will you need to load the elevator to move all of the crates? Explain.