

**8-8 Skills Practice: Solving Inequalities by Multiplying or Dividing** **Math8***Show your work for all solutions!***1. Solve each inequality and check your solution. Then graph the solution on a number line.**

a.  $-3 \leq 4w$



b.  $-6a > -78$



c.  $-25t \leq 400$



d.  $18 > -2g$



e.  $\frac{y}{4} \geq 2.4$



f.  $\frac{r}{2} < -2$



g.  $-8 > \frac{k}{-0.4}$



h.  $\frac{m}{-7} \leq 1.2$

**2. Solve each inequality. Check your solution. (show your work)**

a.  $13a \geq -26$

b.  $-15 \leq 5b$

c.  $-3m > -33$

d.  $-8z \leq -24$

e.  $\frac{n}{-5} \geq 0.8$

f.  $6 > \frac{x}{-7}$

g.  $-5 \geq \frac{c}{4.5}$

h.  $-19 > \frac{y}{-0.3}$

i.  $-\frac{1}{3}x \geq -9$

**3. Write an inequality and solve each problem.**

- a. Five times a number is more than 55.
- b. The quotient of a number and 12 is no more than three.
- c. The product of  $-6$  and a number is at least 54.
- d. The product of  $-\frac{1}{3}$  and a number is less than  $-36$ .
- e. The quotient of a number and 3 is at least  $-5$ .
- f. A number divided by 4 is more than 16.

4. Monroe needs more than 45 cubic feet of soil to fill the planter he built. Each bag of soil contains 2.5 cubic feet. Write and solve an inequality to find how many bags of soil Monroe will need.
5. Lois is making a rectangular collage. The area of the rectangle is 255 square inches, and the area of each photo is 15 square inches. She will overlap the photos so the total area of the photos is more than 255 square inches. Write and solve an inequality to find how many photos Lois will need.
6. Jason's class is having a car wash to raise money for a project. They want to raise at least \$120, and they are charging \$5 to wash a car. Write and solve an inequality to find how many cars must be washed to raise \$120.