Name:_____Date:_____Period:_____

Solving Inequalities by Multiplication and Division Worksheet 352

Match each inequality with its corresponding statement.

1. $-4n \geq 5$ **a.** Negative four times a number is less than five

2. $\frac{4}{5}n > 5$ **b.** Four fifths of a number is no more than five

3. $4n \leq 5$ **c.** Four times a number is fewer than five

4. $\frac{4}{5}n \leq 5$ **d.** Negative four times a number is no less than five

5. $4n < 5$ **e.** Four times a number is at most five

6. $-4n < 5$ **f.** Four fifths a number is more than five

Solve each inequality. Then check your solution.

7. $-\frac{a}{5} < -14$ **8.** $-13h \leq 52$ **9.** $\frac{s}{16} \geq -6$ **10.** $39 > 13p$

11. $\frac{2}{3}n > -12$ **12.** $-\frac{5}{9}t < 25$ **13.** $-\frac{3}{5}m \leq -6$ **14.** $\frac{10}{3}k \geq -10$

15. $-3b \leq 0.75$ **16.** $-0.9c > -9$ **17.** $0.1x \geq -4$ **18.** $-2.3 < \frac{j}{4}$

19. $-15y < 3$ **20.** $2.6v \geq -20.8$ **21.** $0 > -0.5u$ **22.** $\frac{7}{8}f \leq -1$

Define a variable, write an inequality, and solve each problem. Then check your solution.

23. Negative three times a number is at least 57.

24. Two thirds of a number is no more than −10.

25. Negative three fifths of a number is less than −6.

26. FLOODING A river is rising at a rate of 3 inches per hour. If the river rises more than 2 feet, it will exceed flood stages. How long can the river rise at this rate without exceeding flood stage?

27. SALES Pet Supplies makes a profit of $5.50 per bag on its line of natural dog food. If the store wants to make a profit of no less than $5225, how many bags of dog food does it need to sell?