

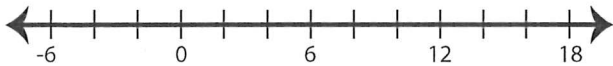
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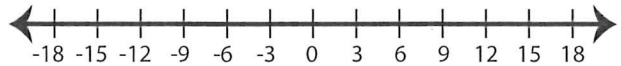
Solving & Graphing Inequalities

Solve each inequality and graph the solution.

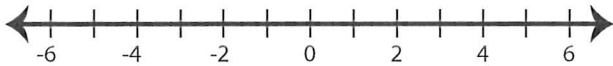
1) $32 \geq 8x$



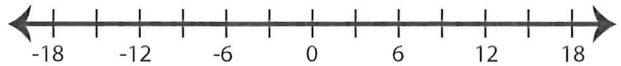
2) $\frac{x}{2} < 3$



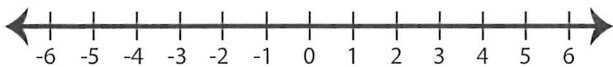
3) $6 \leq x + 9$



4) $2 > x - 7$



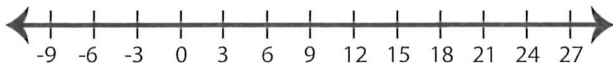
5) $18 < 9x$



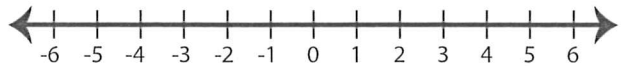
6) $1 \geq \frac{x}{8}$



7) $x - 15 > 3$



8) $x + 11 \leq 10$



Name _____

Inequality Word Problems

Given an inequality in a word problem, like so,

If one roll of masking tape costs \$1.15, how many rolls can Max buy with at least \$5.75?

There you will need to take in order to figure out the possible solutions. First we need to figure out what the problem is saying. What is my variable? In this question, the variable is the number of rolls of masking tape. We know that each roll costs \$1.15. This means we will multiply the number of rolls by that price. We know he has at least \$5.75. This means my answer can be equal to, if not greater than that cost. My inequality would be written as shown below.

$$1.15m \geq 5.75$$

From there I can solve the inequality. by using the opposite operation, and dividing 5.75 by 1.15, I know that $m \geq 5$.

My final step is to graph all of the possible solutions on a number line. Because it's greater than or equal to, I will use a closed circle on 5 and draw my arrow to the right.



1. Lisa is cooking muffins. The recipe calls for more than 7 cups of sugar. She has already put in 2 cups. How many more cups does she need to put in?

Write and solve the inequality.

Graph the inequality.



2. Max's employer has at most \$18.00 to spend on tape measures for his crew. How many can he buy with that amount if each tape measure costs \$4.50?

Write and solve the inequality.

Graph the inequality.



3. After paying \$5.00 for a salad, Taylor has no more than \$27.00 left. How much money did she have before buying the salad?

Write and solve the inequality.

Graph the inequality.

