

# Activity 9 Assessment

## Using Pattern Rules to Solve Problems

### Solving and Graphing for Inequalities

Recognizes inequality symbols and their meanings in various inequality equations.

$$3m > 18$$

$$3m \geq 18$$

“Each time, the unknown can be any number greater than 6. In the second equation, it could also be 6. There are many quantities that would work.”

Represents solutions by graphing on a number line and tests values to check solutions.

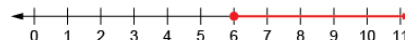
$$25 > 5m$$



“The unknown multiplied by 5 must be less than 25. I can count by groups of 5 to get to 25. So, the unknown is 1, 2, 3, or 4.”

Verifies the solution by thinking of related equality and testing numbers.

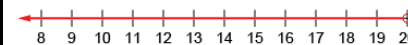
$$3m \geq 18$$



“I can use the number line to graph the solution. I know  $3 \times 6 = 18$ . So, the unknown can be any number equal to or greater than 6.”

Flexibly solves inequalities, then verifies and graphs the solutions.

$$5 > \frac{n}{4}$$



“What number can I divide by 4 so that the answer is less than 5? I can rearrange the equation to find the unknown:  $5 \times 4 > n$ ”

### Observations/Documentation