

Solve the following multi-step problem. Show all your work.

10. Ali wants to spend at most \$10 for a taxi ride. There is an initial charge of \$2 for the taxi. The meter then adds \$1.25 for every mile  $m$ . Ali also plans to give a \$1 tip. Write an inequality that shows the greatest distance Ali can ride in the taxi. Solve the inequality and graph the solutions on a number line.

Show your work.

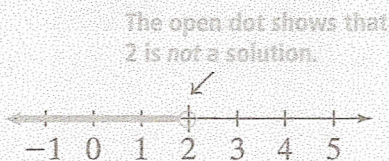
Answer \_\_\_\_\_

## Take It With You

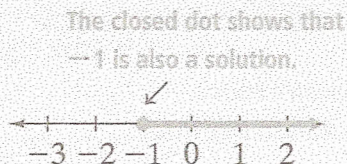


### Graphing Inequalities

Graph of  $x < 2$ :



Graph of  $x \geq -1$ :



### Multiplying and Dividing Inequalities

Multiply/divide by a *positive* number:

$$2 \cdot \frac{y}{2} < 2 \cdot 7$$
$$y < 14 \quad \leftarrow \text{Direction of inequality doesn't change.}$$

Multiply/divide by a *negative* number:

$$\frac{-2f}{-2} \geq \frac{-12}{-2}$$
$$f \leq 6 \quad \leftarrow \text{Direction of inequality is reversed.}$$