

**Homework Practice****Write and Graph Inequalities****Write an inequality for each sentence.**

1. More than 2,500 people attended the convention.

$$p > 2500$$

 $p =$  people attending

2. Her earnings were no more than \$64.
- $e =$
- earnings

$$e \leq 64$$

3. The winning 5K race time was less than 22 minutes.
- $t =$
- time

$$t < 22$$

4. A checking-account balance is no more than \$500.
- $b =$
- balance

$$b \leq \$500$$

5. A maximum ceiling height of 8 feet was required in the new buildings.
- $h =$
- height

$$h \leq 8$$

6. A minimum number of 12 participants is required to hold a bike rally.

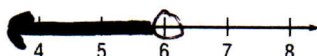
$$p \geq 12$$

 $p =$  participants**Graph each inequality on a number line.**

7.  $x > 15$



8.  $s < 6$



9.  $b \geq 13$



10.  $x < 23$



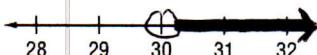
11.  $r > 18$



12.  $r \geq 5$



13.  $x > 30$



14.  $b \leq 4$



15.  $a \geq 9$



16. **DONATIONS** Total donations at the Fireman's Ball failed to reach \$940. Write and graph an inequality that represents the amount raised.

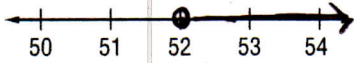
 $d =$  donations

$$d < 940$$

**Get Connected** For more examples, go to [glencoe.com](http://glencoe.com).

**Problem-Solving Practice****Write And Graph Inequalities**

- 1. ROLLER COASTER** In order to ride a roller coaster at the theme park, riders must be at least 52 inches tall. Write and graph an inequality to show the safe heights for riders.



$h = \text{height}$

$$h \geq 52 \text{ inches}$$

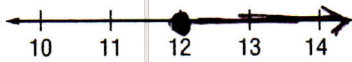
- 2. FARMING** One forklift can raise a maximum of 2,000 kilograms. Write and graph an inequality to describe the number of kilograms the forklift can raise.



$k = \text{kilograms}$

$$k \leq 2000$$

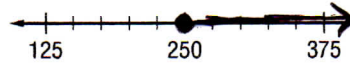
- 3. INTERSTATES** On interstate highways, the minimum allowable lane width is 12 feet. Write and graph an inequality to show the possible width of a lane.



$w = \text{width}$

$$w \geq 12$$

- 4. TRAVEL** Traveling salespeople for a book company are paid at least \$250 for each trip they take to sell books. Write and graph an inequality to describe the amount salespeople are paid per trip.



$p = \text{pay}$

$$p \geq 250$$

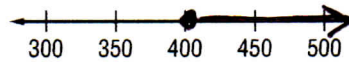
- 5. SPEED LIMIT** The speed limit on most state roads is 55 miles per hour. Write and graph an inequality to describe the legal speed on state roads.



$\text{speed} = s$

$$s \leq 55$$

- 6. TRIP** Seniors who want to go on the group trip to the mountains have to pay at least \$400 of their total bill before the payment deadline. Write and graph an inequality to describe the acceptable payment.



$p = \text{payment}$

$$p \geq 400$$