

Homework Practice

Solve One-Step Inequalities

Solve each inequality. Graph the solution on a number line.

$$1. \frac{6x}{6} > \frac{12}{6} \quad x > 2$$

$$2. \frac{h-4}{+4} > \frac{9}{+4} \quad h > 13$$

$$3. s + \frac{7}{-5} \leq \frac{14}{-5} \quad s \leq 9$$

$$4. \frac{n}{4} \geq 3 \cdot 4 \quad n \geq 12$$

$$5. m + 9 < 13 \quad m < 4$$

$$6. \frac{2q}{2} < \frac{26}{2} \quad q < 13$$

$$7. \frac{b}{2} < 13 \cdot 2 \quad b < 26$$

$$8. \frac{p}{6} < 5 \cdot 6 \quad p < 30$$

$$9. \frac{13b}{13} \leq \frac{39}{13} \quad b \leq 3$$

$$10. w + 18 \geq 30 \quad w \geq 12$$

$$11. \frac{z}{8} \geq 3 \cdot 8 \quad z \geq 24$$

$$12. y - 5 < 12 \quad y < 17$$

$$13. k + 14 \geq 22 \quad k \geq 8$$

$$14. \frac{3v}{3} < \frac{21}{3} \quad v < 7$$

$$15. \frac{14n}{14} \geq \frac{56}{14} \quad n \geq 4$$

$$16. \frac{s}{2} < 16 \cdot 2 \quad s < 32$$

17. **TRANSPORTATION** A certain minivan has a maximum carrying capacity of 1,200 pounds. If the luggage weighs 150 pounds, what is the maximum weight allowable for passengers? $1200 \geq 150 + p$ or $p + 150 \leq 1200$

18. **DISCOUNTS** To qualify for a store discount, Clay's soccer team must spend at least \$560 for new jerseys. The team needs 20 jerseys. Write and solve an inequality to represent how much the team should spend on each jersey to qualify for the discount.

Get Connected For more examples, go to glencoe.com.

$$j = \text{cost jersey}$$

$$20j \geq \$560$$

Problem-Solving Practice**Solve One-Step Inequalities**

- 1. ENTERTAINMENT** Gabe went to the amusement park with \$40 to spend. His ticket cost \$26.50. Write and solve an inequality to show how much he might spend on souvenirs and snacks.

$$f = \text{money can spend.}$$

$$f + \$26.50 \leq 40$$

$$\quad -26.50 \quad -26.50$$

$$f \leq \$13.50$$

- 2. AQUARIUM** Leeza's aquarium holds 55 gallons of water. She is filling the tank and has already put in 22 gallons. Write and solve an inequality to find out how many more gallons she might put in the tank.

$$g = \text{gallons}$$

$$g + 22 \leq 55$$

$$\quad -22 \quad -22$$

$$g \leq 33$$

- 3. CARS** Many mechanics advise people not to drive their cars more than 5,000 miles between oil changes. Kaci has driven her car 3,450 miles since the last oil change. Write and solve an inequality to find out how many more miles she might drive before having her oil changed again.

$$m = \text{miles driven}$$

$$m + 3450 \leq 5000$$

$$\quad -3450 \quad -3450$$

$$m \leq 1550$$

- 4. FURNITURE** Dan builds furniture. The table shows his minimum production times.

Furniture	Minimum Production Times (hr)
Child's table	2
Bench	1
Dining table	4
China cabinet	7

Dan builds children's tables on Tuesday. He works 10 hours. Write and solve an inequality to determine how many children's tables Dan can build that day. $t = \text{tables}$

$$\frac{2t}{2} \leq \frac{10}{2} \quad t \leq 5$$

- 5. PIANO** Drew practices piano at least 45 minutes per day. He has already practiced 18 minutes. Write and solve an inequality to determine how much longer he will be practicing.

$$p = \text{practice}$$

$$p + 18 \geq 45$$

$$\quad -18 \quad -18$$

$$p \geq 27$$

- 6. SPORTS** At baseball spring training, the coach throws at least 30 ground balls to each outfielder. He has thrown 16 ground balls to the right fielder. Write and solve an inequality to determine how many more balls he can be expected to throw to the right fielder.

$$g = \text{ground balls}$$

$$g + 16 \geq 30$$

$$\quad -16 \quad -16$$