

**3.6****Challenge Practice**

For use with pages 149–153

**Solve the inequality. Graph your solution.**

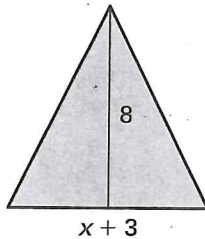
1.  $3b - 6 > 7(b + 2)$

2.  $\frac{6-x}{4} \geq 1$

3.  $\frac{2x+4}{6} < -6$

4.  $\frac{3p-2}{-3} \leq 8$

5. A video game system costs \$185 and one video game costs \$14.95. You can spend no more than \$280 on the system and games. What is the greatest number of games you can buy?
6. Mohan can spend no more than \$40 on school supplies. He decides to buy a ream of paper for \$3.98 and spend the rest of his money on 3-ring binders that cost \$3.75 each. How many binders can Mohan buy?
7. At a local lake, there are two boat rental stores. Store A requires a \$50 deposit and charges \$35 per hour for the boat rental. Store B charges \$55 per hour and no deposit. How long do you have to rent a boat before the cost at store A is less than the cost at store B?
8. Use the figures below. What does  $x$  have to be in order for the area of the triangle to be greater than the area of the rectangle?



9. The length  $\ell$  of a rectangle is 5 units longer than its width  $w$ . If the perimeter of the rectangle must be at least 34 units, what are the possible lengths of the rectangle?