

LESSON
8-4

Solving Two-Step Inequalities

Practice and Problem Solving: D

Solve. Then, graph each solution set. The first one is done for you.

1. $7y - 8 > 6$ $y > 2$



2. $4d + 15 \leq -1$ _____



3. $\frac{r}{-6} + 5 < 7$ _____



Give three solutions for each inequality. The first one is done for you.

4. $5 + 2x > 9$ 5. $\frac{1}{5}(y + 10) \leq -25$ 6. $-3(1 - z) < 9$

3, 4, 5 _____ _____

Solve the inequality for each problem. The first one is done for you.

7. An employee of a car wash earns \$12 for each car she washes. She always saves \$50 of her weekly earnings. This week, she wants to have at least \$100 in spending money. What is the fewest number of cars she must wash?

$12n - 60 \geq 100$

Add 60 to both sides of the inequality: $12n - 60 + 60 \geq 100 + 60$; $12n \geq 160$; divide by

12 : $n \geq 13\frac{1}{3}$; more than 13 cars have to be washed, so 14 cars have to be washed.

8. A video-game enthusiast saved \$750 to spend on a video game player and games. The player costs \$400. The games cost \$49 each. At most, how many games can the enthusiast buy along with the player?

$750 \geq 400 + 49x$
