Name: _____

5-5 Additional Practice

Scan for Multimedia

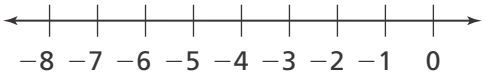
Leveled Practice For **1–4**, fill in the boxes to solve the inequality. Then graph the solution.

1. $15x \geq -60$

$15x \geq -60$

$\frac{15x}{\square} \quad \square \quad \frac{60}{\square}$

$x \quad \square \quad \square$

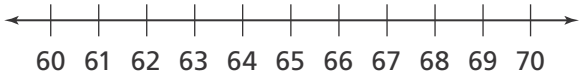


2. $\frac{b}{8} < 8$

$\frac{b}{8} < 8$

$\square \cdot \frac{b}{8} \quad \square \quad \square \cdot 8$

$b \quad \square \quad \square$

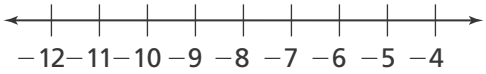


3. $-4n > 36$

$-4n > 36$

$\frac{-4n}{\square} \quad \square \quad \frac{36}{\square}$

$n \quad \square \quad \square$

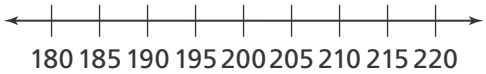


4. $\frac{w}{-10} \leq -20$

$\frac{w}{-10} \leq -20$

$\square \cdot \frac{w}{-10} \quad \square \quad \square \cdot (-20)$

$w \quad \square \quad \square$



5. Each of 4 family members uses 175 minutes or fewer of their combined family cell phone plan. At the end of the month, the family does not have any remaining cell phone minutes. Solve the inequality $x \div 4 \leq 175$ to find how many cell phone minutes the family might share each month.

6. Solve each inequality.

a. $3x < 90$

b. $-d \geq 0.5$

c. $\frac{v}{32} > -2$

7. A teacher writes the inequality $x \div 6 < -12$ on the board. Vincent incorrectly solves the inequality and obtains $x < -2$ as the solution.

a. What was Vincent's likely error?

b. What is the correct solution?

8. Higher Order Thinking A student needs three pieces of wire for a science project. The second piece must be 3 times as long as the first. The third piece must be twice as long as the second. The student has 350 inches of wire to make the three pieces. Let x be the length of the first piece of wire.

a. Look for Relationships Write an inequality that models this situation. MP.7

b. What are the possible lengths of the shortest piece of wire?

9. Solve the inequality.

$\frac{g}{-100} \leq 6$

Assessment Practice

10. A package of hamburgers contains 8 patties and costs $7.50.

PART A

Luna has to buy at least 16 packages for an upcoming picnic. Write and solve an inequality to describe the number of hamburger patties, p, that Luna needs to buy.

PART B

Suppose she actually needs more than 150 hamburgers. How much will she spend? Explain.

11. Find the solution of the following inequality: $-7x > 28$.

Ⓐ $x > 4$ Ⓑ $x < 4$

Ⓒ $x > -4$ Ⓓ $x < -4$