



H.O.T. Problems Higher Order Thinking



9. **MP Find the Error** Mei is writing an inequality for the expression *at least 10 hours of community service*. Find her mistake and correct it.

$c \leq 10$

10. **MP Persevere with Problems** Name three solutions of the inequality $w \leq \frac{4}{5}$. Then justify your response using a number line.

11. **MP Justify Conclusions** Explain the difference between graphing an inequality with a closed dot and one with an open dot. Use examples to support your reasoning.

12. **MP Model with Mathematics** Graph the solution to each set of inequalities on a number line.

a. $x > 5$ and $x < 8$

b. $y \geq -2$ and $y < 7$

c. $t < 3$ or $t \geq 6$

d. $w \leq -5$ or $w \geq 0$