Mastery Algebra 1 Practice Mastery Quiz 3-3 Name: Key

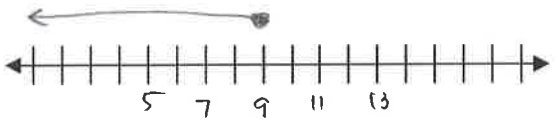
Per:

3-3 Solve Inequalities Using × or ÷

Solve each inequality and graph the solutions.

1. $\frac{3}{5}\cdot\frac{5}{3}t \le 15\cdot\frac{3}{5}$? $\frac{15}{1}\cdot\frac{3}{5} = \frac{5}{1}$

$t \le 9$



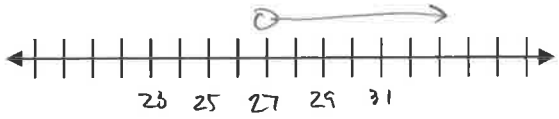
2. $\frac{g}{3} - 2 > 7$

$+2 \quad +2$

$\frac{g}{3} > 9$

$3\cdot\frac{g}{3} > 9\cdot 3$

$g > 27$



Graph each inequality.

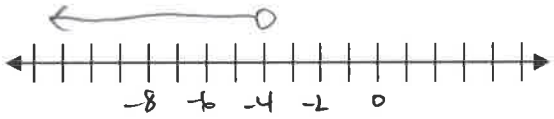
3. $6 < -3(x+2)$

$6 < -3x - 6$

$+6 \quad +6$

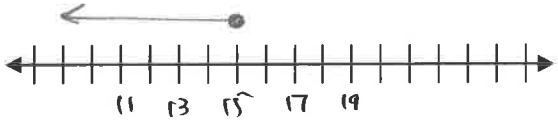
$\frac{12}{-3} < \frac{-3x}{-3}$

$-4 > x$ so $x < -4$



4. $-5(-5) \le \left(\frac{x}{-5}\right)(-5)$

$15 \ge x$ so $x \le 15$



Identify a variable, write an inequality to represent this situation, and solve it.

5. To remain on the football team, Steven must attend at least $\frac{3}{4}$ of the study hall sessions offered. He attends 12 sessions. If Steven barely met the requirements, what is the maximum number of study hall sessions there could have been?

let x = # study hall sessions

$12 \ge \frac{3}{4}x$

$\frac{4}{3}(12) \ge x$

$16 \ge x$

so $x \le 16$

There could have been at most 16 study hall sessions.