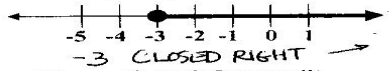
Algebra I Mini-Quiz 3.1-3.5 Name Answer Key Period

Write the inequality shown by the graph.

1. 

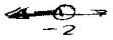
-3 CLOSED RIGHT → $x \geq -3$

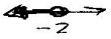
Solve. Show all work for credit.

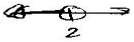
2. $x + \frac{2}{7} \geq \frac{6}{7}$
$-\frac{2}{7} \quad -\frac{2}{7}$
$x \geq \frac{4}{7}$

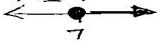
3. $\frac{-4z}{-4} \geq \frac{12}{-4}$ ÷ by neg change direction
$z \leq -3$

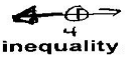
4. $\frac{p}{2} < 60 - 2$
$p < 120$

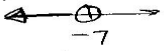

5. $-3y - 8 > -2$
$+8 \quad +8$
$\frac{-3y}{-3} > \frac{6}{-3}$ change direction
$y < -2$


6. $z + 7 + 4z \leq -3$
$5z + 7 \leq -3$
$-7 \quad -7$
$\frac{5z}{5} \leq \frac{-10}{5}$
$z \leq -2$


7. $4(x+2) < 16$
$4x + 8 < 16$
$-8 \quad -8$
$\frac{4x}{4} < \frac{8}{4}$
$x < 2$


8. $5 \cdot \frac{7x+1}{5} \geq 10 \cdot 5$
$7x + 1 \geq 50$
$-1 \quad -1$
$7x \geq 49$
$x \geq 7$


9. $7x - 1 < 4x + 11$
$-4x + 1 \quad -4x + 1$
$\frac{3x}{3} < \frac{12}{3}$
$x < 4$


10. $2(k-1) > 5 + 3k$
$2k - 2 > 5 + 3k$
$-3k + 2 \quad +2 - 3k$
$\frac{-k}{-1} > \frac{7}{-1}$
$k < -7$


BONUS:
Solve the compound inequality and graph.

$5 < 3x - 1 \leq 11$
$+1 \quad +1 \quad +1$
$\frac{6}{3} < \frac{3x}{3} \leq \frac{12}{3}$
$2 < x \leq 4$


Part A

Answers	
1)	$x \geq -3$
2)	$x > \frac{4}{7}$
3)	$z \leq -3$
4)	$p < 120$
5)	$y < -2$
6)	$z \leq -2$
7)	$x < 2$
8)	$x \geq 7$
9)	$x < 4$
10)	$k < -7$

Bonus Answer: $2 < x \leq 4$

Bonus Graph: