

Name: \_\_\_\_\_

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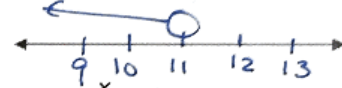
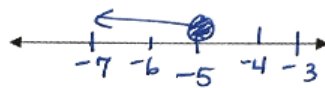
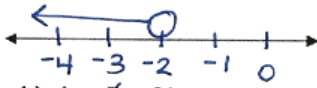
HW# \_\_\_\_\_

Solve and graph each inequality.

1.)  $-4x + 6 + 2x - 18 > -8$   
 $-2x - 12 > -8$   
 $+12 +12$   
 $-2x > 4$   
 $-2 -2$   
 $x < -2$

2.)  $-5x + 7 \geq 22 - 2x$   
 $+2x +2x$   
 $-3x + 7 \geq 22$   
 $-7 -7$   
 $-3x \geq 15$   
 $-\frac{3}{-3} \frac{15}{-3}$   
 $x \leq -5$

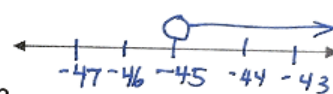
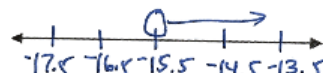
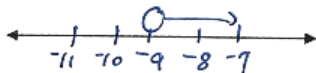
3.)  $4(x-2) < 3(x+1)$   
 $4x - 8 < 3x + 3$   
 $-3x -3x$   
 $x - 8 < 3$   
 $+8 +8$   
 $x < 11$



4.)  $4x + 5 > -31$   
 $+5 -5$   
 $4x > -36$   
 $\frac{4}{4} \frac{-36}{4}$   
 $x > -9$

5.)  $2x + 5 > -26$   
 $+5 -5$   
 $2x > -31$   
 $\frac{2}{2} \frac{-31}{2}$   
 $x > -15.5$

6.)  $\frac{x}{3} - 10 < 5$   
 $+10 +10$   
 $\frac{x}{3} < 15$   
 $\frac{x}{3} < 15 \cdot (-3)$   
 $x > -45$



Which represents the **largest integer** in the solution set of  $3x + 9 < 21$ ?

(A) 4

(B) 3.9

(C) 3

(D) 9

$3x + 9 < 21$   
 $-9 -9$   
 $3x < 12$   
 $\frac{3}{3} \frac{12}{3}$   
 $x < 4$

Is  $x = -3$  in the solution set of  $-4 + 5x \geq -9$ ? Justify your answer.

$-4 + 5(-3) \geq -9$

$-4 - 15$

$-19 \geq -9$  **No**