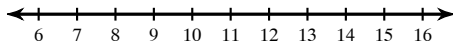


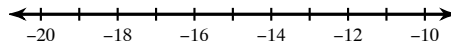
## Review for PC #2 - Unit 1

Solve each inequality and graph its solution.

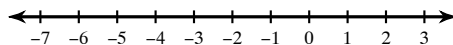
1)  $84 < 7(m + 1)$



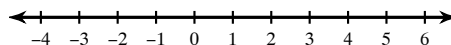
2)  $7 + \frac{m}{8} \geq 5$



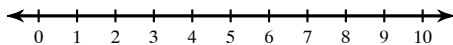
3)  $-4 + 4(5 + 5m) \leq 7m - 36$



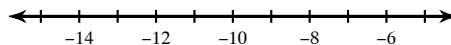
4)  $5p + 20 < 5(3p + 8)$



5)  $-8(n - 6) \leq -2(n - 6)$



6)  $5(m - 2) < -(-3 - 6m)$



Translate the words into an inequality and graph. Then find all of the choices that would have this graph as a solution.

7) A number is at least  $-3$ .

A)  $x + 23 \geq -4(x - 2)$

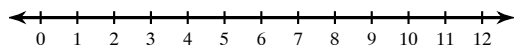
B)  $2x + 7 - x \geq 2x + 4$

C)  $-6x \leq 18$

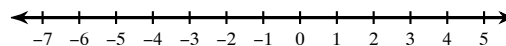
D)  $2(x + 1) \leq 3x + 5$

**Solve each compound inequality and graph its solution.**

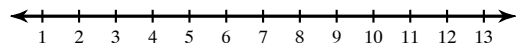
8)  $24 \leq 3x < 27$



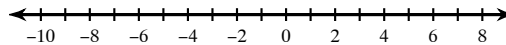
9)  $2x > 0$  or  $x - 3 < -5$



10)  $-3 - 6n > -39$  or  $6n - 10 \geq 44$



11)  $-17 \leq 2n + 1 \leq 15$



12) The French club is sponsoring a bake sale. If their goal is to raise at least \$140, how many pastries must they sell at \$3.50 each in order to meet that goal? Write and solve the inequality.

13) Four times the quantity of the sum of a number and 15 is at least 120 and no more than 165. Write and solve a compound inequality to find all possible values of x.

**Write an algebraic proof for each equation.**

14)  $8(-2a - 8) = -160$

15)  $-90 = 2(7k + 4)$

16)  $-190 = -5(7x - 4)$

17)  $3(7n - 4) = -117$