

List the elements of the set.

1) If $A = \{-5, -3, -2, -1, 2\}$ and $B = \{-5, -3, -2, -1\}$, list the elements of $A \cap B$.

1) _____

A) $\{2\}$

B) $\{-5, -3, -2, -1, 2\}$

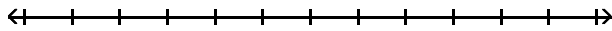
C) $\{-5, -3, -2, -1\}$

D) $\{\}$

Solve the compound inequality. Graph the solution set.

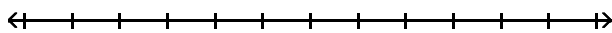
2) $x \leq 1$ and $x \leq -3$

2) _____



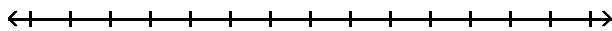
3) $-9x > -18$ and $x + 9 > 7$

3) _____



4) $-20 \leq -3c - 2 < -11$

4) _____



Solve.

5) Cindy has scores of 75, 84, 83, and 90 on her biology tests. Use a compound inequality to find the range of scores she can make on her final exam to receive a C in the course. The final exam counts as two tests, and a C is received if the final course average is from 70 to 79.

5) _____

List the elements of the set.

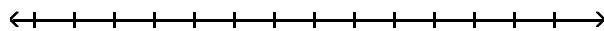
6) If $A = \{3, 4, 5, 8\}$ and $B = \{1, 3, 4, 6\}$, list the elements of $A \cup B$.

6) _____

Solve the compound inequality. Graph the solution set.

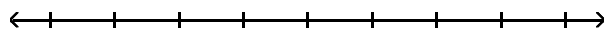
7) $x \leq 4$ or $x \geq 5$

7) _____



8) $-3x + 1 \geq 7$ or $7x + 3 \geq -25$

8) _____



Solve the absolute value equation.

9) $|x - 3| = 9$

9) _____

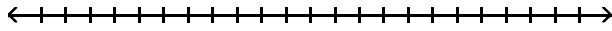
10) $|3x + 4| + 10 = 3$

10) _____

Solve the inequality. Graph the solution set.

11) $\left| \frac{4y + 12}{3} \right| < 4$

11) _____



Solve the absolute value equation.

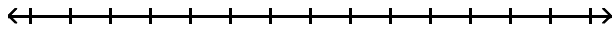
12) $|8x - 3| = |x + 8|$

12) _____

Solve the inequality. Graph the solution set.

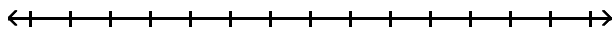
13) $|8k + 9| < -6$

13) _____



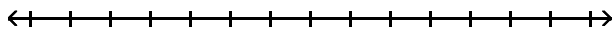
14) $|7k + 3| - 2 > 4$

14) _____



15) $|8k + 8| > -7$

15) _____



Determine whether the ordered pair given is a solution of the linear inequality in two variables.

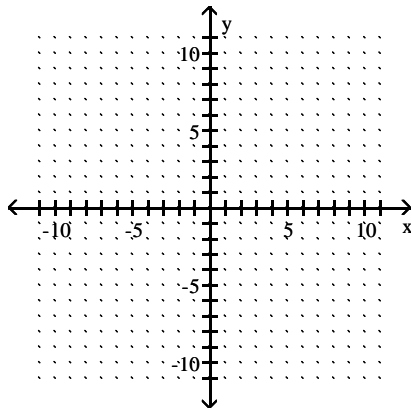
16) $x + 2y > -8$; $(4, -5)$

16) _____

Graph the inequality.

17) $x - y > -2$

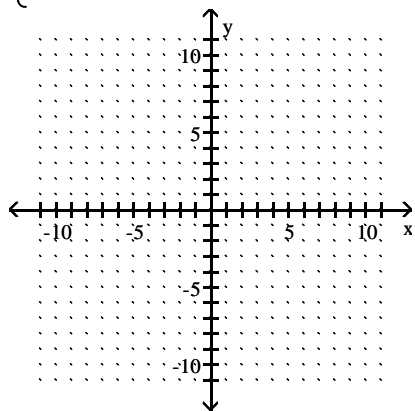
17) _____



Graph the solution of the system of linear inequalities.

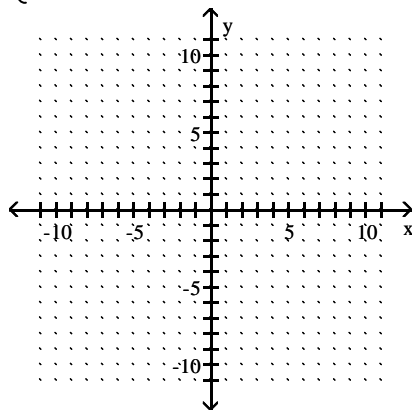
$$18) \begin{cases} y > 1 \\ x \geq -3 \end{cases}$$

18) _____



$$19) \begin{cases} y + 3x \geq -7 \\ 5x - 4y \leq 12 \end{cases}$$

19) _____

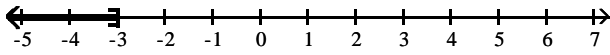


Answer Key

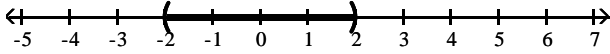
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1) C

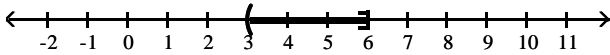
2) $(-\infty, -3]$



3) $(-2, 2)$



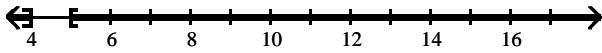
4) $(3, 6]$



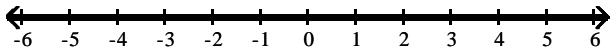
5) $44 \leq \text{final score} \leq 71$

6) $\{1, 3, 4, 5, 6, 8\}$

7) $(-\infty, 4] \cup [5, \infty)$



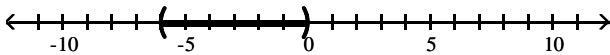
8) $(-\infty, \infty)$



9) $-6, 12$

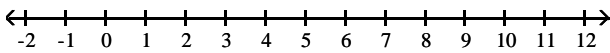
10) \emptyset

11) $(-6, 0)$

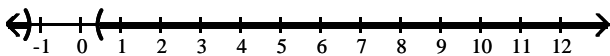


12) $\frac{11}{7}, -\frac{5}{9}$

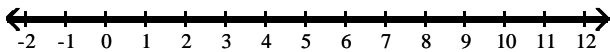
13) \emptyset



14) $\left(-\infty, -\frac{9}{7}\right) \cup \left(\frac{3}{7}, \infty\right)$



15) $(-\infty, \infty)$

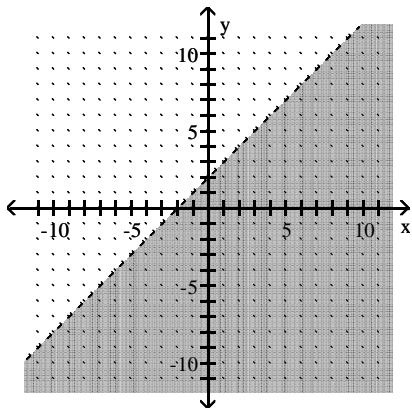


16) Yes

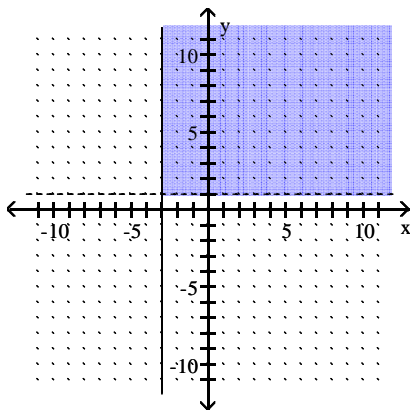
Answer Key

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17)



18)



19)

