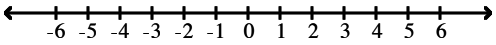
Compound Inequalities

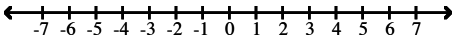
SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

Solve and graph.

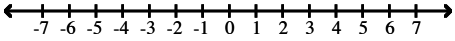
1) $x < 4$ or $x < 7$ 1) _____



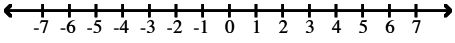
2) $6x - 4 < 2x$ or $-2x \leq -6$ 2) _____



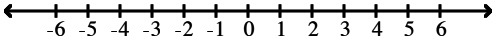
3) $-3x + 1 \geq 7$ or $6x + 3 \geq -21$ 3) _____



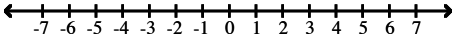
4) $x \leq 2$ or $x \geq 5$ 4) _____



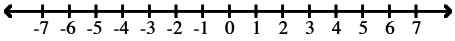
5) $x < 1$ or $x < 6$ 5) _____



6) $12x - 8 < 4x$ or $-4x \leq -12$ 6) _____



7) $-5x + 1 \geq 11$ or $3x + 3 \geq -9$ 7) _____



Solve.

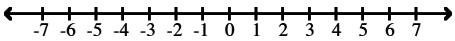
8) $7x + 8 \leq -6$ or $9x - 1 \geq -10$ 8) _____

9) $3 \leq 2t - 1$ or $9 \geq 2t - 1$ 9) _____

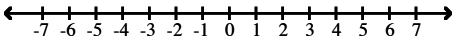
10) $-5c + 3 \leq -22$ or $-5c + 3 > -7$ 10) _____

Solve and graph.

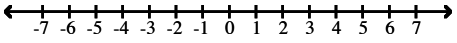
11) $2x - 1 \geq -13$ and $2x - 1 \leq -5$ 11) _____



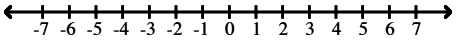
12) $2x + 6 \geq 14$ and $4x - 5 \geq 15$ 12) _____



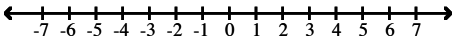
13) $7x - 8 < -29$ and $-8 - 9x > 1$ 13) _____



14) $4x > 4$ and $x + 5 < 5$ 14) _____



15) $5x - 1 < 4$ and $x - 2 > -1$ 15) _____



Solve.

16) $-4 < x + 6 < 8$ 16) _____

17) $15 < 5x \leq 30$ 17) _____

18) $8 \leq 2t + 4 \leq 20$ 18) _____

19) $-13 \leq -3c + 2 < -4$ 19) _____

20) $4 \leq \frac{5}{2}x - 1 < 19$ 20) _____

Compound Inequalities

Solve and Graph

21) $x > 5$ or $x < 1$

22) $x \geq 4$ or $x \leq -2$

23) $2x - 1 < 7$ or $-x + 6 < 1$

24) $-x + 6 < -18$ or $3x < -9$

25) $x - 6 > -7$ and $-4x - 1 > -5$

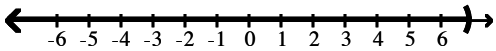
26) $2x + 8 > 0$ and $x - 6 > 3$

27) $\frac{1}{2}x \leq 5$ and $-6x + 2 \geq 14$

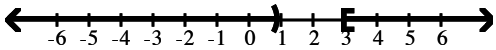
See Video Soutions for these answers!

Answer Key
Testname: COMPOUND INEQUALITIES

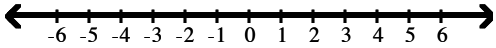
1) $(-\infty, 7)$



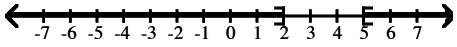
2) $(-\infty, 1) \cup [3, \infty)$



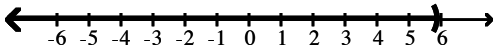
3) $(-\infty, \infty)$



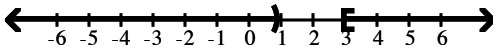
4) $(-\infty, 2] \cup [5, \infty)$



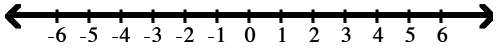
5) $(-\infty, 6)$



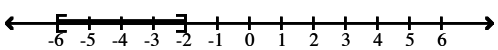
6) $(-\infty, 1) \cup [3, \infty)$



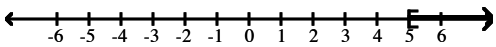
7) $(-\infty, \infty)$



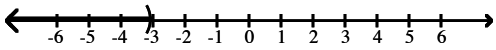
8) $(-\infty, -2] \cup [-1, \infty)$
9) $(-\infty, \infty)$
10) $(-\infty, 2) \cup [5, \infty)$
11) $[-6, -2]$



12) $[5, \infty)$



13) $(-\infty, -3)$



14) $\emptyset$
15) $\emptyset$
16) $(-10, 2)$
17) $(3, 6]$
18) $[2, 8]$
19) $(2, 5]$
20) $[2, 8)$