

Identifying Solutions

Two-step: S1

Choose the correct solution that best describes each inequality.

1) $10 - 2x < 4$ or $4x + 13 \geq 21$

- a) $(-\infty, 2] \cup (3, \infty)$ b) $(-\infty, 2) \cap [3, \infty)$
 c) $[2, \infty)$ d) $(3, \infty)$

2) $3 > 5x + 28$ and $7x < x + 18$

- a) $(-\infty, 3)$ b) $(-5, 3)$
 c) $(-\infty, -5) \cup (3, \infty)$ d) $(-\infty, -5)$

3) $\frac{x+8}{5} \geq 4$ or $3x - 16 \geq 5$

- a) $(-\infty, 7] \cap [12, \infty)$ b) $(-\infty, 7] \cup [12, \infty)$
 c) $(-\infty, 7] \cup (12, \infty)$ d) $(-\infty, 7] \cap (12, \infty)$

4) $7x + 18 < 25$ or $15x - 11 > 34$

- a) $(-\infty, 3)$ b) $(3, \infty)$
 c) $(-\infty, 3) \cup (3, \infty)$ d) $[1, 3)$

5) $6 \leq 4x - 2 < 14$

- a) $(-\infty, 2] \cap (4, \infty)$ b) $(-\infty, 2] \cup (4, \infty)$
 c) $(-\infty, 4)$ d) $(-\infty, 4) \cup (4, \infty)$

6) $45 + 5x \leq 2x$

- a) $(-\infty, -15) \cup [15, \infty)$ b) $(-\infty, -15) \cup (15, \infty)$
 c) $(-\infty, -15) \cup [15, \infty)$ d) $(-\infty, -15) \cup (15, \infty)$

7) $13x - 7 \geq 32$ or $27 < 4x + 1$

- a) $[3, \infty)$ b) $(-\infty, 3] \cup (6, \infty)$
 c) $(-\infty, 3) \cup [6, \infty)$ d) $(-\infty, 3] \cup (6, \infty)$

8) $\frac{x+5}{3} > -7$

- a) $(-\infty, 5)$ b) $(-26, 5]$
 c) $[-26, 5)$ d) $(-\infty, 5]$

9) $2x - 6 \leq 8$ and $\frac{x+11}{3} > 4$

- a) $(-\infty, 7]$ b) $(-\infty, -7) \cap [1, \infty)$
 c) $(1, 7]$ d) $[1, \infty)$

10) $\frac{x}{6} + 7 > 15$ or $4x + 18 \geq 34$

- a) $[4, \infty)$ b) $(48, \infty)$
 c) $(-\infty, 4) \cup (48, \infty)$ d) $(-\infty, -48) \cap (4, \infty)$

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