

Identifying Solutions

Two-step: S3

Choose the correct solution that best describes each inequality.

1) $-10 + 3x < 8$ and $\frac{x+4}{2} \leq -7$

- a) $(-\infty, -18] \cup (6, \infty)$ b) $(-\infty, 6)$
 c) $(-\infty, -18]$ d) $[-18, 6)$

2) $4x - 23 \leq 5$ or $-16 \geq 9x + 29$

- a) $(-\infty, 7] \cap [-5, \infty)$ b) $(-\infty, -5]$
 c) $(-\infty, -5] \cup [7, \infty)$ d) $(-\infty, 7]$

3) $\frac{x}{6} + 11 < 9$ or $8x + 40 > 24$

- a) $(-\infty, 2) \cap (12, \infty)$ b) $(-\infty, 2)$
 c) $(-12, -2)$ d) $(-12, 2)$

4) $19 > 5x - 1 > -6$

- a) $(-1, \infty)$
 b) $[-1, \infty)$
 c) $(-\infty, -1] \cap (4, \infty)$
 d) $(-\infty, -1] \cap (4, \infty)$

5) $9 \geq 2x - 7$ and $6x \leq x + 3$ or $3x - 5 > 28$

- a) $(-\infty, 8]$ b) $(-\infty, 8]$
 c) $(-\infty, 3] \cup [8, \infty)$ d) $(-\infty, 3] \cup [8, \infty)$

- a) $(-\infty, -7] \cup (11, \infty)$
 b) $(-\infty, -7] \cup (11, \infty)$
 c) $(-\infty, -7] \cup (11, \infty)$
 d) $(-\infty, -7] \cup (11, \infty)$

7) $-38 < 18 + 7x \leq 4x$

- a) $(-8, -6]$ b) $(-8, -6]$
 c) $(-\infty, -8) \cap (-6, \infty)$ d) $[-8, -6)$

8) $1 < \frac{x+19}{5}$

- a) $(-\infty, -15) \cup (-14, \infty)$
 b) $(-\infty, -15) \cup (-14, \infty)$
 c) $(-14, 15)$
 d) $(-\infty, -15)$

9) $\frac{x+6}{4} \geq -1$ and $5x - 17 \geq 8$

- a) $[-10, \infty)$ b) $(-\infty, -10] \cup [5, \infty)$
 c) $[-10, 5]$ d) $[5, \infty)$

10) $23 - 8x < -1$ or $17 \geq 6x + 29$

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

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