

Book

$$57) 1 > 6z - 8 \quad \text{or} \quad 8z - 6 \leq 10$$

$$-6z > -8 - 1 \quad \cup \quad 8z \leq 10 + 6$$

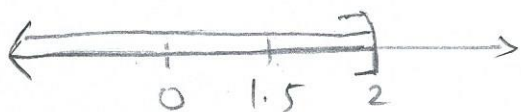
$$\frac{-6z}{-6} > \frac{-9}{-6}$$

$$\frac{8z}{8} \leq \frac{16}{8}$$

$$z \leq 2$$

$$z < \frac{3}{2}$$

$$z < 1.5$$



$$(-\infty, 2] \quad \{z \mid z \leq 2\}$$

$$28) a + 6 > -2 \quad \text{and} \quad \frac{5a}{5} < \frac{30}{5}$$

$$a > -2 - 6 \quad \cap \quad a < 6$$

$$a > -8$$



$$(-8, 6) \quad \{a \mid -8 < a < 6\}$$

$$13a) \quad 2x - 3 \leq 5 \quad \text{and} \quad 3x - 1 \leq 8$$

$$2x \leq 5 + 3 \quad \cap \quad 3x \leq 8 + 1$$

$$\frac{2x}{2} \leq \frac{8}{2}$$

$$x \leq 4$$

$$\frac{3x}{3} \leq \frac{9}{3}$$

$$x \leq 3$$



$$(-\infty, 3] \quad \{x \mid x \leq 3\}$$

$$14a) \quad x \geq -5 \quad \text{or} \quad \frac{-x}{-1} \leq \frac{-2}{-1}$$
$$\cup \quad x \geq 2$$



$$[-5, \infty) \quad \{x \mid x \geq -5\}$$

$$12a) \quad \frac{-x \leq 3}{-1 \quad -1} \quad \text{and} \quad x < 4$$

$$x \geq -3$$



$$(-3, 4) \quad \{x \mid -3 \leq x < 4\}$$

$$15) \quad 2x + 4 \geq 8 \quad \text{or} \quad 4x - 3 < 1$$

$$2x \geq 8 - 4$$

$$\frac{2x}{2} \geq \frac{4}{2}$$

$$x \geq 2$$

or

$$4x < 1 + 3$$

$$\frac{4x}{4} < \frac{4}{4}$$

$$x < 1$$



$$(-\infty, 1) \cup [2, \infty) \quad \{x \mid x < 1 \text{ or } x \geq 2\}$$

Review

$$0 < 6x + 3 \leq 12$$

$$0 - 3 < 6x \leq 12 - 3$$

$$\frac{-3}{6} < \frac{6x}{6} \leq \frac{9}{6}$$

$$-0.5 < x \leq 1.5$$



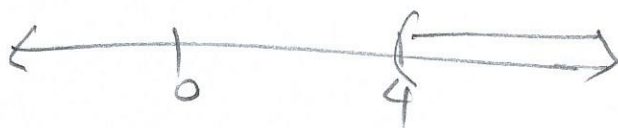
$$(-0.5, 1.5] \quad \left\{ x \mid -0.5 < x \leq 1.5 \right\}$$

$$-3x + 5 < -2x + 1$$

$$-3x + 2x < 1 - 5$$

$$\frac{-x}{-1} < \frac{-4}{-1}$$

$$x > 4$$



$$(4, \infty) \quad \left\{ x \mid x > 4 \right\}$$