

Section P.1 page 9

30. All y in the interval $[-6, 0)$ can be written as the following inequality

$$-6 \leq y < 0$$

33. t is at least 10 and at most 22 can be written as the following inequality

$$10 \leq t \leq 22$$

58. The distance between $a = -4$ and $b = -\frac{3}{2}$ is

$$|(-4) - (-\frac{3}{2})| = |-4 + \frac{3}{2}| = |-\frac{8}{2} + \frac{3}{2}| = |-\frac{5}{2}| = \frac{5}{2}$$

or

$$|(-\frac{3}{2}) - (-4)| = |-\frac{3}{2} - (-4)| = |-\frac{3}{2} + \frac{8}{2}| = |\frac{5}{2}| = \frac{5}{2}$$

$$107. \frac{2x}{3} - \frac{x}{4} = \frac{2x \cdot 4}{3 \cdot 4} - \frac{x \cdot 3}{4 \cdot 3} = \frac{8x}{12} - \frac{3x}{12} = \frac{5x}{12}$$

$$108. \frac{5x}{6} \cdot \frac{2}{9} = \frac{5x \cdot 2}{6 \cdot 9} = \frac{10x}{54} = \frac{5x}{27} \text{ (simplified)}$$