Exercise 76

Distance Find the distance between the given numbers.

$$\textbf{(a)} \ \ \frac{7}{15} \ \text{and} \ -\frac{1}{21} \qquad \textbf{(b)} \ \ -38 \ \text{and} \ -57 \qquad \textbf{(c)} \ \ -2.6 \ \text{and} \ -1.8$$

Solution

The distance between the numbers is the absolute value of their difference.

$$\textbf{(a)} \ \ \left| \frac{7}{15} - \left(-\frac{1}{21} \right) \right| = \left| \frac{18}{35} \right| = \frac{18}{35}$$

$$\textbf{(b)} \ \ |-38 - (-57)| = |19| = 19$$

$$\textbf{(c)} \ \ |-2.6 - (-1.8)| = |-0.8| = 0.8$$