Exercise 75

Distance Find the distance between the given numbers.

(b)
$$-3 \text{ and } 21$$

(a) 2 and 17 (b)
$$-3$$
 and 21 (c) $\frac{11}{8}$ and $-\frac{3}{10}$

Solution

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

(a)
$$|2-17| = |-15| = 15$$

(b)
$$|-3-21| = |-24| = 24$$

(c)
$$\left| \frac{11}{8} - \left(-\frac{3}{10} \right) \right| = \left| \frac{110}{80} + \frac{24}{80} \right| = \left| \frac{134}{80} \right| = \frac{134}{80} = \frac{67}{40}$$