

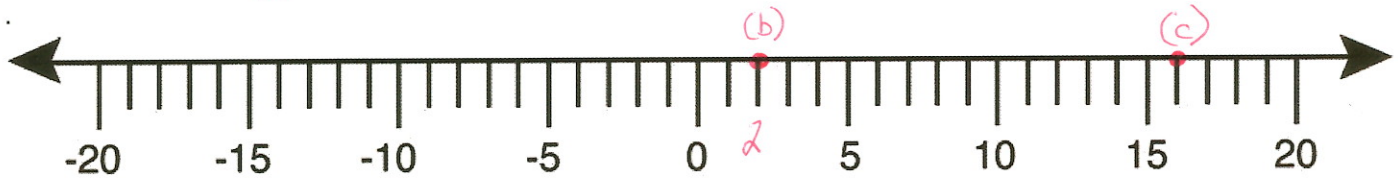
1. a) Define: "absolute value" *the distance from zero of a number on the number line*

b) Simplify: $|-9 + 7|$ and plot the result on the number line below.

$$= |-2| = 2$$

c) Simplify: $(9 + 7)$ and plot the result on the number line below.

$$= 16$$



d) Complete the number sentence using $<$ or $>$ or $=$: *so* $|-9 + 7| < (9 + 7)$

2. Sarah put on an extra pound over Rosh Hashanah but lost two pounds over Yom Kippur. She then gained four pounds over Sukkos. She went on a diet and lost two pounds the first week and one pound the second week.

a. Write an equation showing how her weight changed.

$$(+1 - 2 + 4 - 2 - 1) \text{ lbs}$$

b. Solve it to find how much she gained or lost overall.

$$(+1 - 2 + 4 - 2 - 1) \text{ lbs} = (+5 - 5) \text{ lbs} = 0 \text{ lbs}$$

∴ There was no net gain or loss (her weight is unchanged overall)

3. a) Estimate the sum: $45,987 + 23,345 \approx$

$$40,000 + 20,000 = 60,000 \quad \text{(other answers may be acceptable)}$$

$$\text{or } 46,000 + 23,000 = 69,000$$

b) Calculate the exact sum: $45,987 + 23,345 =$

$$\begin{array}{r} 45,987 \\ + 23,345 \\ \hline 69,332 \end{array}$$

4. a) Find the sum: $0.083 + 5,479 + 1.15 + 547 + 0.001 =$

$$\begin{array}{r}
 111.083 \\
 5479.000 \\
 1.150 \\
 547.000 \\
 \hline
 0.001 \\
 \hline
 6,027.234
 \end{array}$$

- b) Find the sum: $-91,312 + 16,425 =$

$$\begin{array}{r}
 \overset{10}{8}1, \overset{10}{8}12 \\
 -16,425 \\
 \hline
 74,887 \rightarrow -74,887
 \end{array}$$

5. a) Name the property illustrated: $(-75) + 41 + (-62) + 12 = (-75) + (-62) + 41 + 12$

commutative property

- b) Solve: $(-75) + 41 + (-62) + 12 =$

$$(-75) + (-62) + 41 + 12 = (-137) + 53 = -84$$

$$\begin{array}{r}
 75 \\
 +62 \\
 \hline
 137 \rightarrow -137
 \end{array}
 \quad
 \begin{array}{r}
 41 \\
 +12 \\
 \hline
 53
 \end{array}$$

$$\begin{array}{r}
 137 \\
 -53 \\
 \hline
 84 \rightarrow -84
 \end{array}$$