1. Multiply and model. Rewrite each expression as a number sentence with decimal factors. The first one is done for you.

a. \[
\frac{1}{10} \times \frac{1}{10} = \frac{1 \times 1}{10 \times 10} = \frac{1}{100}
\]
\[
0.1 \times 0.1 = 0.01
\]

b. \[
\frac{6}{10} \times \frac{2}{10} = \frac{6 \times 2}{10 \times 10} = \frac{12}{100}
\]
\[
0.6 \times 0.2 = 0.12
\]

c. \[
\frac{1}{10} \times 1.6 = \frac{1 \times 1.6}{10 \times 10} = \frac{1.6}{100}
\]
\[
0.1 \times 1.6 = 0.16
\]

d. \[
\frac{6}{10} \times 1.9 = \frac{6 \times 1.9}{10 \times 10} = \frac{11.4}{100}
\]
\[
0.6 \times 1.9 = 1.14
\]
2. Multiply. The first few are started for you.
   a. \( 4 \times 0.6 = \frac{24}{10} = 2.4 \)
   b. \( 0.4 \times 0.6 = \frac{4}{10} \times \frac{6}{10} = \frac{4 \times 6}{100} = 0.24 \)
   c. \( 0.04 \times 0.6 = \frac{4}{100} \times \frac{6}{10} = \frac{4 \times 6}{1000} = 0.024 \)
   d. \( 7 \times 0.3 = \frac{7 \times 3}{10} = \frac{21}{10} = 2.1 \)
   e. \( 0.7 \times 0.3 = \frac{7}{10} \times \frac{3}{10} = \frac{21}{100} = 0.21 \)
   f. \( 0.07 \times 0.3 = \frac{7}{100} \times \frac{3}{10} = \frac{21}{1000} = 0.021 \)
   g. \( 1.3 \times 5 = \frac{13}{10} \times 5 = \frac{13 \times 5}{10} = \frac{65}{10} = 6.5 \)
   h. \( 1.3 \times 0.5 = \frac{13}{10} \times \frac{5}{10} = \frac{13 \times 5}{100} = \frac{65}{100} = 0.65 \)
   i. \( 0.13 \times 0.5 = \frac{13}{100} \times \frac{5}{10} = \frac{13 \times 5}{1000} = \frac{65}{1000} = 0.065 \)

3. Jennifer makes 1.7 liters of lemonade. If she pours \( \frac{3}{10} \) of the lemonade in the glass, how many liters of lemonade are in the glass?

   Glass: \[ \frac{3}{10} \text{ of } 1.7 \text{ L} = \frac{3}{10} \times 1.7 \text{ L} = \frac{3 \times 17}{10 \times 10} = \frac{51}{100} = 0.51 \text{ L} \]
   She poured 0.51 L in the glass.

4. Cassius walked 6 tenths of a 3.6 mile trail.
   a. How many miles did Cassius have left to hike?

   \[ \frac{10}{10} - \frac{6}{10} = \frac{4}{10} \text{ miles left to hike} \]

   \[ \frac{4}{10} \text{ of } 3.6 \text{ mi} = \frac{4}{10} \times \frac{3.6}{10} = \frac{4 \times 3.6}{100} = \frac{14.4}{100} = 0.144 \text{ mi} \]
   Cassius has 0.144 miles left.

   b. Cameron was 1.3 miles ahead of Cassius. How many miles did Cameron hike already?

   Cameron hiked \[ \frac{3.6}{2.1} = 1.714 \text{ miles} \]
   Cameron hiked 3.40 miles already.

EUREKA MATH

Lesson 17: Relate decimal and fraction multiplication.

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