1. Multiply and model. Rewrite each expression as a multiplication 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. \( \frac{4}{10} \times \frac{3}{10} \)
   
   \[ = \frac{4 \times 3}{10 \times 10} \]
   
   \[ = \frac{12}{100} \]

\[ 0.4 \times 0.3 = 0.12 \]

c. \( \frac{1}{10} \times 1.4 \)
   
   \[ = \frac{1}{10} \times \frac{14}{10} \]
   
   \[ = \frac{1 \times 14}{10 \times 10} \]
   
   \[ = \frac{14}{100} \]

\[ 0.1 \times 1.4 = 0.14 \]

d. \( \frac{6}{10} \times 1.7 \)
   
   \[ = \frac{6}{10} \times \frac{17}{10} \]
   
   \[ = \frac{6 \times 17}{10 \times 10} \]
   
   \[ = \frac{102}{100} = \frac{2}{100} \]

\[ 0.6 \times 1.7 = 1.02 \]
2. Multiply. The first few are started for you.
   a. \(5 \times 0.7 = \frac{35}{10} = \frac{5 \times 7}{10} = \frac{35}{10} = 3.5\)
   b. \(0.5 \times 0.7 = \frac{5}{10} \times \frac{7}{10} = \frac{35}{100} = 0.35\)
   c. \(0.05 \times 0.7 = \frac{5}{100} \times \frac{7}{10} = \frac{35}{1000} = 0.035\)
   d. \(6 \times 0.3 = \frac{18}{10} = \frac{6 \times 3}{10} = \frac{18}{10} = 1.8\)
   e. \(0.6 \times 0.3 = \frac{18}{10 \times 10} = \frac{18}{100} = 0.18\)
   f. \(0.06 \times 0.3 = \frac{6}{100} \times \frac{3}{10} = \frac{18}{1000} = \frac{0.018}{1000} = 0.018\)
   g. \(1.2 \times 4 = \frac{48}{10} = \frac{12 \times 4}{10 \times 10} = \frac{48}{100} = 0.48\)
   h. \(1.2 \times 0.4 = \frac{12}{10} \times \frac{4}{10} = \frac{12 \times 4}{100} = 0.48\)
   i. \(0.12 \times 0.4 = \frac{12}{100} \times \frac{4}{10} = \frac{12 \times 4}{100 \times 10} = \frac{48}{1000} = 0.048\)

3. A boy scout has a length of rope measuring 0.7 meter. He uses 2 tenths of the rope to tie a knot at one end. How many meters of rope are in the knot?
   \(\frac{2}{10} \times 0.7 = \frac{2}{10} \times \frac{7}{10} = \frac{2 \times 7}{100} = \frac{14}{100} = 0.14\)

4. After just 4 tenths of a 2.5 mile race was completed, Lenox took the lead and remained there until the end of the race.
   a. How many miles did Lenox lead the race?
      
      Lenox lead the race for \(\frac{6}{10}\) of the race. That is 1.5 miles.
      
      \(\frac{6}{10} \times 2.5 = \frac{15}{100} = \frac{1.5}{10}\)
   b. Reid, the second place finisher, developed a cramp with 3 tenths of the race remaining. How many miles did Reid run without a cramp?
      
      He ran 1.75 miles of the race without a cramp.