1. Solve and support your answer with a model or tape diagram. Write your quotient in the blank.

   a. $\frac{1}{2} \div 4 = \frac{1}{8}$

   
   
   b. $\frac{1}{3} \div 6 = \frac{1}{18}$

   
   
   c. $\frac{1}{4} \div 3 = \frac{1}{12}$

   
   
   d. $\frac{1}{5} \div 2 = \frac{1}{10}$


2. Divide. Then, multiply to check.

   a. $\frac{1}{2} \div 10 = \frac{1}{20}$

      $\frac{1}{2} \div 10 = \frac{1}{2} \times \frac{1}{10} = \frac{1}{20}$

      $\frac{1}{20} \times 10 = \frac{10}{20} = \frac{1}{2}$

      $\frac{1}{2} \div 10 = \frac{1}{20}$

   b. $\frac{1}{4} \div 10 = \frac{1}{40}$

      $\frac{1}{4} \div 10 = \frac{1}{4} \times \frac{1}{10} = \frac{1}{40}$

      $\frac{1}{40} \times 10 = \frac{10}{40} = \frac{1}{4}$

      $\frac{1}{4} \div 10 = \frac{1}{40}$

   c. $\frac{1}{3} \div 5 = \frac{1}{15}$

      $\frac{1}{3} \div 5 = \frac{1}{3} \times \frac{1}{5} = \frac{1}{15}$

      $\frac{1}{15} \times 5 = \frac{5}{15} = \frac{1}{3}$

      $\frac{1}{3} \div 5 = \frac{1}{15}$

   d. $\frac{1}{5} \div 3 = \frac{1}{15}$

      $\frac{1}{5} \div 3 = \frac{1}{5} \times \frac{1}{3} = \frac{1}{15}$

      $\frac{1}{15} \times 3 = \frac{3}{15} = \frac{1}{5}$

      $\frac{1}{5} \div 3 = \frac{1}{15}$

   e. $\frac{1}{8} \div 4 = \frac{1}{32}$

      $\frac{1}{8} \div 4 = \frac{1}{8} \times \frac{1}{4} = \frac{1}{32}$

      $\frac{1}{32} \times 4 = \frac{4}{32} = \frac{1}{8}$

      $\frac{1}{8} \div 4 = \frac{1}{32}$

   f. $\frac{1}{7} + 3 = \frac{1}{21}$

      $\frac{1}{7} \div 3 = \frac{1}{7} \times \frac{3}{3} = \frac{1}{21}$

      $\frac{1}{21} \times 3 = \frac{3}{21} = \frac{1}{7}$

      $\frac{1}{7} + 3 = \frac{1}{21}$

   g. $\frac{1}{10} + 5 = \frac{1}{50}$

      $\frac{1}{10} \div 5 = \frac{1}{10} \times \frac{1}{5} = \frac{1}{50}$

      $\frac{1}{50} \times 5 = \frac{5}{50} = \frac{1}{10}$

      $\frac{1}{10} + 5 = \frac{1}{50}$

   h. $\frac{1}{5} + 20 = \frac{1}{100}$

      $\frac{1}{5} \div 20 = \frac{1}{5} \times \frac{1}{20} = \frac{1}{100}$

      $\frac{1}{100} \times 20 = \frac{20}{100} = \frac{1}{5}$

      $\frac{1}{5} + 20 = \frac{1}{100}$
3. Teams of four are competing in a quarter-mile relay race. Each runner must run the same exact distance. What is the distance each teammate runs?

Each teammate runs \( \frac{1}{16} \) miles.

\[
\frac{1}{4} \div 4 = \frac{1}{4} \times \frac{1}{4} = \frac{1}{16}
\]

4. Solomon has read \( \frac{1}{3} \) of his book. He finishes the book by reading the same amount each night for 5 nights.

a. What fraction of the book does he read each of the 5 nights?

He reads \( \frac{2}{15} \) of the book each of the 5 nights.

\[
\frac{2}{3} \div 5 = \frac{2}{3} \times \frac{1}{5} = \frac{2}{15}
\]

b. If he reads 14 pages on each of the 5 nights, how long is the book?

The book has 105 pgs.

\[
\begin{align*}
&\text{book} \\
&\text{read} \quad \frac{2}{3} \text{book} \\
&\text{5 nights} \\
&35 \text{ pgs.} \quad 14 \quad 14 \quad 14 \quad 14 \quad 14 \\
&\times 5 \\
&\frac{70}{70} \\
&\text{70 pgs} \div 2 = 35 \text{ pages in each part}
\end{align*}
\]