

1. Evaluate:

$$\begin{array}{lllll}
 a. \frac{1}{3} \cdot \frac{2}{7}; & b. \frac{1}{2} \cdot \frac{5}{6}; & c. \frac{1}{2} \cdot \frac{1}{3}; & d. \frac{3}{5} \cdot \frac{1}{2} \cdot \frac{4}{9}; & e. \frac{1}{2} \cdot \frac{2}{3} \cdot \frac{3}{4} \cdot \frac{4}{5} \\
 & & f. \frac{1}{2} \cdot \frac{2}{3} \cdot \frac{3}{4} \cdot \frac{4}{5} \cdots \frac{23}{24} \cdot \frac{24}{25}
 \end{array}$$

2. Write the fraction inverse to the given fraction:

Example:

$$\frac{3}{4} \rightarrow \frac{4}{3}; \quad \frac{3}{4} \cdot \frac{4}{3} = 1$$

$$a. \frac{3}{7}; \quad b. \frac{7}{9}; \quad c. \frac{12}{5}; \quad d. \frac{9}{4}; \quad e. \frac{1}{3}; \quad f. \frac{1}{3}; \quad g. \frac{m}{n} \ (m, n \neq 0);$$

3. Evaluate:

$$\begin{array}{lllll}
 a. \frac{2}{3} : \frac{5}{7}; & b. \frac{1}{4} : \frac{1}{2}; & c. \frac{3}{4} : \frac{1}{2}; & d. \frac{4}{9} : \frac{8}{9}; & e. \frac{5}{6} : \frac{7}{12}; \\
 f. 2 : \frac{1}{7}; & g. 4 : \frac{2}{3}; & h. 3 : \frac{1}{2}; & i. 1 : \frac{2}{7}; & j. 1 : \frac{1}{4};
 \end{array}$$

4. Find the unknown:

$$\begin{array}{ll}
 a. \frac{1}{3} \cdot x = \frac{1}{6}; & b. \frac{2}{5} \cdot x = \frac{1}{5}; \\
 c. x \cdot 6 = \frac{5}{6}; & d. x \cdot 6 = 4;
 \end{array}$$

5. While doing his homework, John noted the time spent on preparing each lesson: working with a map, solving a problem, and memorizing a poem. Using the data obtained, he formulated two problems. Solve them and try to create problems yourself using your own data:

- The student spent $\frac{1}{4}$ hour on geography and math problem, with the work on the map taking $\frac{1}{20}$ hour less than solving the problem. How much time was spent on each task?
- The student spent $\frac{2}{5}$ of an hour on working with the map and memorizing the poem, with three times as much time spent on memorizing the poem as on working with the map. How much time did each task take?

6. The father is 40 years old. The son's age is $\frac{3}{8}$ of the father's age. How old is the son?

7. The son is 10 years old. His age is $\frac{2}{7}$ of the father's age. How old is the father?
8. There are tents and cabins at the campground, with a total of 25 units. There are 4 people living in each cabin, and 2 people in each tent. How many tents and how many cabins are there at the campground if there are a total of 70 people staying there?
9. The square on the picture divided into squares. What part of the big square is shaded?

