

Homework 7.

1. Find the value of the expression by the most convenient way:

$$\left(\frac{1}{2} + \frac{1}{3} + \frac{1}{4} + \frac{1}{5}\right) + \left(\frac{2}{3} + \frac{2}{4} + \frac{2}{5}\right) + \left(\frac{3}{4} + \frac{3}{5}\right) + \frac{4}{5};$$

2. $\frac{1}{7}$ of all students in the class is 4. How many students are there in the class?
3. $\frac{2}{5}$ of all students in a class is 10. How many students are there in a class?
4. In the school cafeteria there are 12 tables. There are 10 seats at each table. At the lunch time $\frac{4}{5}$ of all seats were occupied by students. How many students were in the cafeteria?

5. Evaluate:

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. $\frac{1}{2} \cdot \frac{2}{3} \cdot \frac{3}{4} \cdot \frac{4}{5} \cdot \dots \cdot \frac{23}{24} \cdot \frac{24}{25}$

6. Evaluate:

a. $\frac{14}{15} \cdot \frac{10}{49} + 5 \frac{3}{7}$; b. $1 \frac{3}{11} - \frac{27}{44} \cdot \frac{4}{9}$ c. $1 \frac{2}{3} + \frac{14}{15} \cdot \frac{5}{7}$

7. Evaluate:

a. $\frac{3}{5} \div \frac{7}{7}$; b. $\frac{1}{4} \div \frac{1}{2}$; c. $\frac{3}{4} \div \frac{1}{2}$; d. $\frac{4}{9} \div \frac{8}{9}$

8. 4 little ducklings and 5 little geese weight 4 kg and 100 g. 5 little ducklings and 4 little geese weight 4 kg. How much does one little goose weight?

