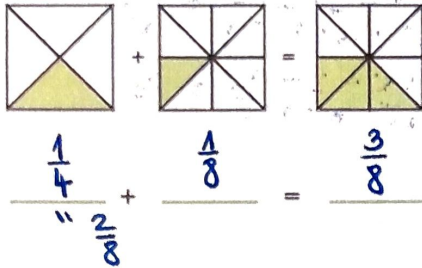


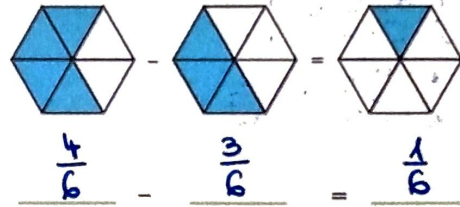
VAJE – RAČUNANJE Z ULOMKI

Zapiši račune.

a)



b)



Ulomke najprej razširi na skupni imenovalac, nato izračunaj vrednost izraza.

$$\begin{aligned} \text{a) } \frac{1}{2} + \frac{1}{3} &= \frac{3}{6} + \frac{2}{6} = \frac{5}{6} \\ \frac{1}{8} + \frac{1}{5} &= \frac{5}{40} + \frac{8}{40} = \frac{13}{40} \\ \frac{1}{4} + \frac{1}{3} &= \frac{3}{12} + \frac{4}{12} = \frac{7}{12} \end{aligned}$$

$$\begin{aligned} \text{b) } \frac{1}{2} - \frac{1}{3} &= \frac{3}{6} - \frac{2}{6} = \frac{1}{6} \\ \frac{1}{5} - \frac{1}{8} &= \frac{8}{40} - \frac{5}{40} = \frac{3}{40} \\ \frac{1}{3} - \frac{1}{4} &= \frac{4}{12} - \frac{3}{12} = \frac{1}{12} \end{aligned}$$

Vsak rezultat mora biti okrajšan in zapisan s celim delom in ulomkom, manjšim od 1, če je možno.

$$\begin{aligned} \text{a) } \frac{4}{5} + \frac{1}{2} &= \frac{8}{10} + \frac{5}{10} = \frac{13}{10} = 1\frac{3}{10} \\ \frac{7}{8} + \frac{3}{4} &= \frac{7}{8} + \frac{6}{8} = \frac{13}{8} = 1\frac{5}{8} \\ \frac{5}{9} + \frac{2}{3} &= \frac{5}{9} + \frac{6}{9} = \frac{11}{9} = 1\frac{2}{9} \end{aligned}$$

$$\begin{aligned} \text{b) } \frac{8}{9} - \frac{1}{3} &= \frac{8}{9} - \frac{3}{9} = \frac{5}{9} \\ \frac{4}{5} - \frac{3}{10} &= \frac{8}{10} - \frac{3}{10} = \frac{5}{10} = \frac{1}{2} \\ \frac{7}{8} - \frac{5}{7} &= \frac{49}{56} - \frac{40}{56} = \frac{9}{56} \end{aligned}$$

Izračunaj.

$$\begin{aligned} \text{a) } 2\frac{2}{3} + 7\frac{3}{4} &= 2\frac{8}{12} + 7\frac{9}{12} = 9\frac{17}{12} = 10\frac{5}{12} \\ 5\frac{1}{2} + 4\frac{2}{3} &= 5\frac{3}{6} + 4\frac{4}{6} = 9\frac{7}{6} = 10\frac{1}{6} \\ 6\frac{5}{7} + 3\frac{1}{4} &= 6\frac{20}{28} + 3\frac{7}{28} = 9\frac{27}{28} \\ 8\frac{9}{10} + 5\frac{4}{5} &= 8\frac{9}{10} + 4\frac{8}{10} = 12\frac{17}{10} = 13\frac{7}{10} \\ 11\frac{1}{4} + 3\frac{4}{5} &= 11\frac{5}{20} + 3\frac{16}{20} = 14\frac{21}{20} = 15\frac{1}{20} \\ 3\frac{2}{9} + \frac{8}{10} &= 3\frac{20}{90} + \frac{72}{90} = 3\frac{92}{90} = 4\frac{1}{45} \end{aligned}$$

$$\begin{aligned} \text{b) } 6\frac{4}{5} - 3\frac{1}{2} &= 6\frac{8}{10} - 3\frac{5}{10} = 3\frac{3}{10} \\ 4\frac{7}{8} - 1\frac{2}{3} &= 4\frac{21}{24} - 1\frac{16}{24} = 3\frac{5}{24} \\ 3\frac{2}{5} - \frac{1}{10} &= 3\frac{4}{10} - \frac{1}{10} = 3\frac{3}{10} \\ 5\frac{1}{4} - 3\frac{5}{8} &= 5\frac{2}{8} - 3\frac{5}{8} = 2\frac{10}{8} - 3\frac{5}{8} = 1\frac{5}{8} \\ 2\frac{2}{9} - 1\frac{4}{5} &= 2\frac{10}{45} - 1\frac{36}{45} = 1\frac{55}{45} - 1\frac{36}{45} = \frac{19}{45} \\ 5\frac{1}{3} - 2\frac{3}{4} &= 5\frac{4}{12} - 2\frac{9}{12} = 4\frac{16}{12} - 2\frac{9}{12} = 2\frac{7}{12} \end{aligned}$$

Pred množenjem krajšaj ulomke.

$$a) \frac{2}{3} \cdot \frac{1}{6} = \frac{2 \cdot 1 \cdot 1}{3 \cdot \cancel{2} \cdot 3} = \frac{1}{9}$$

$$\frac{7}{8} \cdot \frac{4}{5} = \frac{7 \cdot \cancel{4} \cdot 1}{8 \cdot 5 \cdot 2} = \frac{7}{10}$$

$$\frac{6}{9} \cdot \frac{1}{5} = \frac{\cancel{6} \cdot 1 \cdot 2}{8 \cdot 5 \cdot 3} = \frac{2}{15}$$

$$b) \frac{8}{15} \cdot \frac{3}{4} = \frac{\cancel{8} \cdot \cancel{3} \cdot 2 \cdot 1}{15 \cdot \cancel{4} \cdot 1 \cdot 5} = \frac{2}{5}$$

$$\frac{9}{20} \cdot \frac{2}{3} = \frac{\cancel{9} \cdot 2 \cdot 1 \cdot \cancel{3}}{20 \cdot \cancel{3} \cdot 10 \cdot 1} = \frac{3}{10}$$

$$\frac{14}{15} \cdot \frac{3}{7} = \frac{\cancel{14} \cdot \cancel{3} \cdot 2 \cdot 1}{15 \cdot \cancel{7} \cdot 1 \cdot 5} = \frac{2}{5}$$

Pred množenjem zapiši ulomke v razčlenjenem zapisu samo z ulomkom.

$$a) 1\frac{1}{3} \cdot \frac{4}{5} = \frac{4 \cdot 4}{3 \cdot 5} = \frac{16}{15} = 1\frac{1}{15}$$

$$\frac{2}{7} \cdot 2\frac{1}{3} = \frac{2 \cdot \cancel{7} \cdot 1}{\cancel{7} \cdot 3 \cdot 1} = \frac{2}{3}$$

$$3\frac{1}{2} \cdot 2\frac{1}{3} = \frac{7 \cdot 7}{2 \cdot 3} = \frac{49}{6} = 8\frac{1}{6}$$

$$b) 6\frac{2}{5} \cdot \frac{5}{6} = \frac{\cancel{6} \cdot \cancel{5} \cdot 1 \cdot 16}{8 \cdot \cancel{5} \cdot 1 \cdot 3} = \frac{16}{8} = 5\frac{1}{3}$$

$$4\frac{7}{8} \cdot 1\frac{3}{39} = \frac{\cancel{39} \cdot \cancel{4} \cdot 1 \cdot 21}{8 \cdot \cancel{39} \cdot 1 \cdot 4} = \frac{21}{4} = 5\frac{1}{4}$$

$$2\frac{3}{5} \cdot 4\frac{1}{2} = \frac{13 \cdot 9}{5 \cdot 2} = \frac{117}{10} = 11\frac{7}{10}$$

Izračunaj.

$$a) \frac{2}{3} : 5 = \frac{2 \cdot 1}{3 \cdot 5} = \frac{2}{15} \quad \frac{4}{7} : 3 = \frac{4}{21}$$

$$\frac{2}{9} : 7 = \frac{2}{63}$$

$$b) \frac{6}{5} : 3 = \frac{6 \cdot 1 \cdot 2}{5 \cdot \cancel{3} \cdot 1} = \frac{2}{5} \quad \frac{8}{9} : 4 = \frac{8 \cdot 1 \cdot 2}{9 \cdot \cancel{4} \cdot 1} = \frac{2}{9}$$

$$\frac{12}{17} : 8 = \frac{12 \cdot 1 \cdot 3}{17 \cdot 8 \cdot 2} = \frac{3}{34}$$

$$c) 2\frac{1}{2} : 3 = \frac{5 \cdot 1}{2 \cdot 3} = \frac{5}{6} \quad 6\frac{5}{8} : 10 = \frac{53 \cdot 1}{8 \cdot 10} = \frac{53}{80}$$

$$4\frac{3}{4} : 4 = \frac{19 \cdot 1}{4 \cdot 4} = \frac{19}{16} = 1\frac{3}{16}$$

Koliko dobi vsak glede na celoto?

a) Polovico pice si enakomerno razdelita Jure in Metka.

Vsak dobi $\frac{1}{2}$ pice.

b) Četrtno čokolade razpolovimo.

Vsak dobi $\frac{1}{8}$ čokolade. $\frac{1}{4} : 2 = \frac{1}{8}$

c) Polovico vrečke bonbonov razdelimo na tri enake dele.

Vsak dobi $\frac{1}{6}$ vrečke bonbonov. $\frac{1}{2} : 3 = \frac{1}{6}$