

$$\left(\frac{7}{9} + \frac{1}{6}\right) : \left(\frac{3}{4} - \frac{1}{2}\right) = ?$$

$$4\frac{1}{3} - \frac{1}{3} = ?$$

MATEMATIČKA SLIKOVNICA

$$6 : \frac{1}{2} = ?$$



$$10\frac{1}{2} - \frac{1}{2} = ?$$

OPERACIJE

S

$$\frac{3}{5} \cdot \frac{2}{3} = ?$$

RAZLOMCI

35% od 60

$$\frac{1}{4} + \frac{1}{5} = ?$$

$$\frac{\frac{3}{4}}{\frac{2}{5}} = ?$$

$$20\% \text{ od } 300 = ?$$

$$\left(2\frac{2}{3}\right)^2 = ?$$

RASTAVLJANJE BROJEVA NA PROSTE FAKTORE - PONOVIMO

Prosti brojevi: • 2 • 7 • 17
• 3 • 11 • 19
• 5 • 13



Prost broj je PRIRODNI BROJ koji ima točno dva različita djeljitelja, a to su 1 i on sam.

1. Rastavi brojeve na proste faktore: 6, 8, 10, 18, 21, 27, 40, 100, 63.

$$\begin{array}{l} 6 \mid 2 \\ 3 \mid 3 \\ 1 \mid \end{array} \quad 6 = 2 \cdot 3 \quad \begin{array}{l} 8 \mid 2 \\ 4 \mid 2 \\ 2 \mid 2 \\ 1 \mid \end{array} \quad 8 = 2 \cdot 2 \cdot 2 \quad \begin{array}{l} 10 \mid 5 \\ 2 \mid 2 \\ 1 \mid \end{array} \quad 10 = 2 \cdot 5$$

$$\begin{array}{l} 18 \mid 3 \\ 6 \mid 3 \\ 2 \mid 2 \\ 1 \mid \end{array} \quad 18 = 2 \cdot 3 \cdot 3 \quad \begin{array}{l} 21 \mid 7 \\ 3 \mid 3 \\ 1 \mid \end{array} \quad 21 = 3 \cdot 7 \quad \begin{array}{l} 27 \mid 3 \\ 9 \mid 3 \\ 3 \mid 3 \\ 1 \mid \end{array} \quad 27 = 3 \cdot 3 \cdot 3$$

$$\begin{array}{l} 40 \mid 5 \\ 8 \mid 2 \\ 4 \mid 2 \\ 2 \mid 2 \\ 1 \mid \end{array} \quad 40 = 2 \cdot 2 \cdot 2 \cdot 5 \quad \begin{array}{l} 100 \mid 5 \\ 20 \mid 5 \\ 4 \mid 2 \\ 2 \mid 2 \\ 1 \mid \end{array} \quad 100 = 2 \cdot 2 \cdot 5 \cdot 5 \quad \begin{array}{l} 63 \mid 7 \\ 9 \mid 3 \\ 3 \mid 3 \\ 1 \mid \end{array} \quad 63 = 3 \cdot 3 \cdot 7$$

↑ to možemo izračunati u glavi da ne pišemo postupak
npr. $18 = 2 \cdot 3 = 6 \cdot 3 = 18$ $100 = \underbrace{5 \cdot 5}_{25} \cdot \underbrace{2 \cdot 2}_4 = 100$ $63 = \underbrace{3 \cdot 3}_9 \cdot 7 = 63$
 $21 = 3 \cdot 7$

ZBRAJANJE RAZLOMAKA JEDNAKIH NAZIVNIKA

↳ I ODUZIMANJE

$$\frac{8}{15} + \frac{9}{15} = \frac{17}{15}$$

$$\frac{29}{6} - \frac{14}{6} = \frac{15}{6}$$

Razlomke jednakih nazivnika zbrajamo i oduzimamo tako da brojnike zbrojimo ili oduzmemo, a nazivnik prepisemo.

$$1. \quad \frac{3}{20} + \frac{4}{20} = \frac{7}{20}$$

$$\frac{9}{25} - \frac{7}{25} = \frac{2}{25}$$

$$\frac{15}{150} + \frac{85}{150} = \frac{100}{150}$$

$$\frac{8}{66} - \frac{3}{66} = \frac{5}{66}$$

$$\frac{6}{30} + \frac{11}{30} = \frac{17}{30}$$

$$\frac{25}{45} - \frac{11}{45} = \frac{14}{45}$$

$$2. \quad \frac{14}{15} + \left(3 \frac{1}{15} + \frac{2}{15}\right) - \frac{1}{15} = 3. \quad 1 \frac{2}{3} + 6 \frac{5}{3} = \frac{5}{3} + \frac{23}{3} = \frac{28}{3}$$

$$= \frac{14}{15} + \left(\frac{46}{15} + \frac{2}{15}\right) - \frac{1}{15} =$$

$$2 \frac{2}{5} + 3 \frac{2}{5} = \frac{12}{5} + \frac{17}{5} = \frac{29}{5}$$

$$= \frac{14}{15} + \frac{48}{15} - \frac{1}{15} =$$

$$4 \frac{3}{7} - 3 \frac{1}{7} = \frac{31}{7} - \frac{22}{7} = \frac{9}{7}$$

$$= \frac{61}{15} = 4 \frac{1}{15}$$

$$6 \frac{1}{7} - 5 \frac{3}{7} = \frac{43}{7} - \frac{38}{7} = \frac{5}{7}$$

Ti svi razlomci koje smo izračunavali su NESKRATIVI RAZLOMCI.

$$1. \frac{3}{10} + \frac{2}{10} = \frac{5}{10} = \frac{1}{2} \quad \frac{2}{8} + \frac{2}{8} = \frac{4}{8} = \frac{1}{2}$$

$$\frac{7}{9} - \frac{4}{9} = \frac{3}{9} = \frac{1}{3}$$

$$\frac{9}{20} - \frac{4}{20} = \frac{5}{20} = \frac{1}{4}$$

SKRATIVNI
RAZLOMCI

2. Mrkvom je zasaden $\frac{5}{4} \text{ m}^2$, rajčicom $\frac{18}{4} \text{ m}^2$ vrta.

Koliki je m^2 vrta zasaden, ako krumpira ima $\frac{10}{4} \text{ m}^2$

$$\frac{5}{4} + \frac{18}{4} = \frac{23}{4} \quad \frac{23}{4} + \frac{10}{4} = \frac{33}{4} \quad \text{Zasaden je } \frac{33}{4} \text{ m}^2$$

ili

$$= 8 \frac{1}{4} \quad 8 \frac{1}{4}$$

3. Nina je u utorak poslije škole išla kupiti $\frac{15}{30}$ čokolade.
Sljedeći dan je kupila $\frac{11}{30}$ čokolade. Koliko joj je ostalo
čokolade ako je dala baki $\frac{2}{30}$ čokolade?

$$\frac{15}{30} - \frac{11}{30} = \frac{4}{30} \quad \frac{4}{15} - \frac{2}{30} = \frac{4}{30} - \frac{2}{30} = \frac{2}{30}$$

ostalo joj je $\frac{2}{30}$ čokolade.



ZBRAJANJE I ODUZIMANJE RAZLOMKA

Razlomke s različitim nazivnicima zbrajamo/oduzmemo

- razlomak svedemo na najmanji zajednički nazivnik
- nazivnik prepisemo
- brojnike zbrojimo/oduzmemo
- dobivene razlomke skratimo do kraja ako je skrativ

$$1. \frac{5}{6} + \frac{7}{5} = \frac{25}{30} + \frac{42}{30} = \frac{67}{30} = 2 \frac{7}{30}$$

$$\frac{7}{15} + \frac{4}{5} = \frac{7}{15} + \frac{12}{15} = \frac{19}{15} = 1 \frac{4}{15}$$

$$\frac{5}{8} + \frac{4}{6} = \frac{15}{24} + \frac{16}{24} = \frac{31}{24} = 1 \frac{7}{24}$$

$$\frac{11}{18} - \frac{1}{12} = \frac{22}{36} - \frac{3}{36} = \frac{19}{36}$$

$$\frac{7}{12} - \frac{1}{4} = \frac{7}{12} - \frac{3}{12} = \frac{4}{12} = \frac{1}{3}$$

$$\frac{10}{12} - \frac{1}{3} = \frac{10}{12} - \frac{4}{12} = \frac{6}{12} = \frac{2}{4} = \frac{1}{2}$$

$$2. 2 \frac{2}{3} + 2 \frac{8}{9} = \frac{8}{3} + \frac{26}{9} = \frac{24}{9} + \frac{26}{9} = \frac{50}{9} = 5 \frac{5}{9}$$

$$2 \frac{4}{9} - 1 \frac{5}{6} = \frac{22}{9} - \frac{11}{6} = \frac{42}{18} - \frac{33}{18} = \frac{11}{18}$$

→ Mješoviti broj prvo trebamo pretvoriti u razlomak da bih mogli računati dalje...

$$3. 0.5 - \frac{1}{4} = \frac{1}{2} - \frac{1}{4} = \frac{2}{4} - \frac{1}{4} = \frac{1}{4}$$

$$\frac{3}{8} + 0.75 = \frac{3}{8} + \frac{3}{4} = \frac{3}{8} + \frac{6}{8} = \frac{9}{8} = 1 \frac{1}{8}$$

4. Ana je u košaru stavila $\frac{3}{4}$ kg trešanja i $1 \frac{1}{2}$ kg jagoda. Kolika je masa Anine košare?

$$\frac{3}{4} + \frac{3}{2} = \frac{3}{4} + \frac{3}{2} = \frac{3}{4} + \frac{6}{4} = \frac{9}{4} = 2 \frac{1}{4}$$

$$\downarrow$$

$$1 \frac{1}{2}$$



Masa Anine košare je $2 \frac{1}{4}$ kg.

$$5. \frac{1}{2} + \left(\frac{1}{4} + \frac{1}{8} \right) = \frac{1}{3} + 1 + 1 \frac{1}{6} = \frac{3}{4} + \frac{5}{4} - \frac{7}{4} + \frac{1}{4} =$$

$$= \frac{1}{2} + \left(\frac{2}{8} + \frac{1}{8} \right) = \frac{1}{3} + \frac{6}{6} + 1 \frac{1}{6} = \frac{3+5-7+1}{4 \quad 4} =$$

$$= \frac{1}{2} + \frac{3}{8} = \frac{2}{6} + \frac{6}{6} + \frac{7}{6} = \frac{2 \quad 1}{4 \quad 2} = \frac{1}{2}$$

$$= \frac{4}{8} + \frac{3}{8} = \frac{8}{6} + \frac{7}{6} = \frac{15}{6} = \frac{5}{2} = 2 \frac{1}{2}$$

$$= \frac{7}{8}$$

MNOŽENJE RAZLOMAKA

$$\frac{a}{b} \cdot \frac{c}{d} = \frac{a \cdot c}{b \cdot d}$$

PRIJE MNOŽENJA SKRATI!

$$\frac{a}{b} \cdot \frac{c}{d}$$

1. $\frac{1}{3}$ od $\frac{1}{2} = \frac{1}{3} \cdot \frac{1}{2} = \frac{1}{6}$

$$\frac{2}{3} \text{ od } \frac{1}{2} = \frac{2}{3} \cdot \frac{1}{2} = \frac{1}{3}$$

$$\frac{1}{5} \text{ od } \frac{2}{3} = \frac{1}{5} \cdot \frac{2}{3} = \frac{2}{15}$$

2. $\frac{5}{4} \cdot \frac{2}{10} = \frac{\cancel{5}^1}{4_2} \cdot \frac{\cancel{2}^1}{10_2} = \frac{1}{2} \cdot \frac{1}{2} = \frac{1}{4}$

$$\frac{11}{16} \cdot \frac{8}{9} = \frac{11}{2} \cdot \frac{1}{9} = \frac{11}{18}$$

$$\frac{5}{7} \cdot \frac{2}{3} = \frac{10}{21}$$

$$\frac{9}{8} \cdot \frac{6}{9} = \frac{\cancel{9}^3}{8_4} \cdot \frac{\cancel{6}^3}{9_3} = \frac{1}{4} \cdot \frac{3}{1} = \frac{3}{4}$$

$$\frac{12}{5} \cdot \frac{8}{15} = \frac{\cancel{12}^4}{5} \cdot \frac{8}{\cancel{15}_5} = \frac{4}{5} \cdot \frac{8}{5} = \frac{32}{25} = 1 \frac{7}{25}$$

$$\frac{5}{32} \cdot \frac{8}{55} = \frac{\cancel{5}^1}{32_4} \cdot \frac{\cancel{8}^1}{\cancel{55}_{11}} = \frac{1}{4} \cdot \frac{1}{11} = \frac{1}{44}$$

• Prije množenja krati bilo k
brojnik s bilo kojim nazivnikom

• Prije množenja mješovit br
pretvori u razlomak.



$$3. 2 \frac{1}{4} \cdot 4 \frac{2}{3} = \frac{39}{4} \cdot \frac{14}{3} = \frac{3}{2} \cdot \frac{7}{1} = \frac{21}{2} = 10 \frac{1}{2}$$

$$3 \frac{9}{10} \cdot 2 \frac{1}{2} = \frac{39}{10} \cdot \frac{5}{2} = \frac{39}{2} \cdot \frac{1}{2} = \frac{39}{4} = 9 \frac{3}{4}$$

$$2 \frac{7}{8} \cdot 4 = \frac{23}{8} \cdot \frac{4}{1} = \frac{23}{2} \cdot \frac{1}{1} = \frac{23}{2} = 11 \frac{1}{2}$$

$$4. \frac{11}{12} - \frac{13}{20} \cdot \frac{15}{26} = \left(\frac{13}{18} + \frac{7}{15} \right) \cdot \left(\frac{4}{5} - \frac{2}{3} \right) =$$

$$= \frac{11}{12} - \frac{1}{4} \cdot \frac{3}{2}$$

$$= \frac{11}{12} - \frac{3}{8}$$

$$= \frac{22}{24} - \frac{9}{24}$$

$$= \frac{13}{24}$$

$$= \left(\frac{65}{90} + \frac{42}{90} \right) \cdot \left(\frac{12}{15} - \frac{10}{15} \right)$$

$$= \frac{107}{90} \cdot \frac{2}{15} = \frac{107}{675}$$

$$\sqrt{(18, 15)} = 3 \cdot 5 \cdot 6$$

$$\begin{array}{r} 45 \cdot 15 \\ 45 \\ + 225 \\ \hline 675 \end{array}$$

DVOJNI RAZLOMCI

- Dvojni razlomak je razlomak kome su brojnik ili nazivnik razlomci

$$\left(\frac{\frac{a}{b}}{\frac{c}{d}} = \frac{a \cdot d}{b \cdot c} \right)$$

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

$$\frac{\frac{9}{10}}{\frac{6}{5}} = \frac{9}{10} \cdot \frac{5}{6} = \frac{\cancel{9}^3 \cdot \cancel{5}^1}{\cancel{10}_2 \cdot \cancel{6}_2} = \frac{3 \cdot 1}{2 \cdot 2} = \frac{3}{4}$$

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

$$\frac{1 \frac{1}{2}}{1 \frac{1}{4}} = \frac{3}{2} \cdot \frac{5}{4} = \frac{3}{2} \cdot \frac{4^2}{5} = \frac{3 \cdot 2}{1 \cdot 5} = \frac{6}{5} = 1 \frac{1}{5}$$

$$\frac{2 \frac{2}{5} - 1 \frac{3}{10}}{\left(\frac{3}{4} - \frac{5}{8} \right) \cdot 1.6} = \frac{2 \frac{4}{10} - 1 \frac{3}{10}}{\left(\frac{6}{8} - \frac{5}{8} \right) \cdot \frac{16}{10}} = \frac{1 \frac{1}{10}}{\frac{1}{8} \cdot \frac{8}{5}} = \frac{\frac{11}{10}}{\frac{1}{5}} = \frac{11 \cdot 5}{10 \cdot 1} = \frac{11}{2} = 5 \frac{1}{2}$$

$$\frac{\left(\frac{3}{2} + \frac{1}{4} + 1 - \frac{5}{8}\right) : \frac{5}{8}}{\left(\frac{1}{2} + \frac{1}{8} - \frac{1}{4}\right) \cdot 1\frac{3}{5}} = \frac{\left(\frac{12}{8} + \frac{2}{8} + \frac{8}{8} - \frac{5}{8}\right) : \frac{5}{8}}{\left(\frac{4}{8} + \frac{1}{8} - \frac{2}{8}\right) \cdot \frac{8}{5}}$$

$$= \frac{\frac{17}{8} \cdot \frac{8}{5}}{\frac{3}{8} \cdot \frac{8}{5}} = \frac{\frac{17}{5}}{\frac{3}{5}} = \frac{17 \cdot 5^1}{8 \cdot 3} = \frac{17}{3} = 5\frac{2}{3}$$

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

$$\frac{6}{3} = \frac{6}{1} = \frac{6 \cdot 5}{1 \cdot 3} = \frac{30}{3} = \frac{10}{1} = 10$$

RECIPROČNI BROJEVI

- Ako je umnožak brojeva 1, kažemo da su to RECIPROČNI BROJEVI
- Razlomku $\frac{a}{b}$, recipročan je razlomak $\frac{b}{a}$.
- Broj jedan recipročan je sam sebi.

BROJ ili RAZLOMAK	RECIPROČNI BROJ / RAZLOMAK	UMNOŽAK
$\frac{6}{7}$	$\frac{7}{6}$	$\frac{6}{7} \cdot \frac{7}{6} = 1$
$\frac{5}{6}$	$\frac{6}{5}$	$\frac{5}{6} \cdot \frac{6}{5} = 1$
$\frac{3}{4}$	$\frac{4}{3}$	$\frac{3}{4} \cdot \frac{4}{3} = 1$
$3 = \frac{3}{1}$	$\frac{1}{3}$	$\frac{3}{1} \cdot \frac{1}{3} = 1$
$2 = \frac{2}{1}$	$\frac{1}{2}$	$\frac{2}{1} \cdot \frac{1}{2} = 1$
$5 \frac{2}{5} = \frac{27}{5}$	$\frac{5}{27}$	$\frac{27}{5} \cdot \frac{5}{27} = 1$
broj 1 ↙ $1 = \frac{1}{1}$ recipročan je sam sebi	$\frac{1}{1}$	$\frac{1}{1} \cdot \frac{1}{1} = 1$

DIJELJENJE RAZLOMKA

- Dijeljenje je množenje recipročnim brojem
- Razlomke dijelimo tako da djeljenik pomnožimo s recipročnim brojem djelitelja

$$1. \frac{5}{6} : \frac{15}{12} = \frac{5}{6} \cdot \frac{12}{15} = \frac{1}{1} \cdot \frac{2}{3} = \frac{2}{3}$$

$$\frac{13}{16} : \frac{2}{5} = \frac{13}{16} \cdot \frac{5}{2} = \frac{65}{32} = 2 \frac{1}{32}$$

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

$$\frac{8}{15} : \frac{4}{1} = \frac{8}{15} \cdot \frac{1}{4} = \frac{2}{15} \cdot \frac{1}{1} = \frac{2}{15}$$

$$5 \frac{5}{6} : \frac{7}{1} = \frac{35}{6} : \frac{7}{1} = \frac{35}{6} \cdot \frac{1}{7} = \frac{5}{6} \cdot \frac{1}{1} = \frac{5}{6}$$

$$\frac{1}{2} : 2 = \frac{1}{2} : \frac{2}{1} = \frac{1}{2} \cdot \frac{1}{2} = \frac{1}{4}$$

$$2 \frac{2}{5} : 24 = \frac{12}{5} : \frac{24}{1} = \frac{12}{5} \cdot \frac{1}{24} = \frac{1}{5} \cdot \frac{1}{2} = \frac{1}{10}$$

$$12 : \frac{3}{4} = \frac{12}{1} : \frac{3}{4} = \frac{12}{1} \cdot \frac{4}{3} = \frac{4}{1} \cdot \frac{4}{1} = \frac{16}{1} = 16$$

$$3 \frac{3}{5} : 1 \frac{4}{10} = \frac{18}{5} : \frac{14}{10} = \frac{18}{5} \cdot \frac{10}{14} = \frac{9}{1} \cdot \frac{2}{7} = \frac{18}{7} = 2 \frac{4}{7}$$

Postupak dijeljenja:

- Prepišemo djeljenik
- Napišemo \cdot (puta)
- Djelitelj zamijenimo njegovim recipročnim brojem
- Pomnožimo

$$= \left(\frac{2}{4} + \frac{3}{4} \right) : \frac{4}{1}$$

$$= \frac{5}{4} : \frac{4}{1}$$

$$= \frac{5}{4} \cdot \frac{1}{4} = \frac{5}{16}$$

$$= \left(\frac{17}{5} + \frac{23}{20} \right) : 13$$

$$= \left(\frac{68}{20} + \frac{23}{20} \right) : 13$$

$$= \frac{91}{20} : \frac{13}{1}$$

$$= \frac{91}{20} \cdot \frac{1}{13} = \frac{7}{20}$$

$$= \frac{5}{6} + \frac{2}{3} : \frac{2}{1}$$

$$= \frac{5}{6} + \frac{12}{3} \cdot \frac{1}{12} =$$

$$= \frac{5}{6} + \frac{1}{3}$$

$$= \frac{5}{6} + \frac{2}{6} = \frac{7}{6} = 1$$

3. Marta ima domaći sok od jabuke $13\frac{1}{3}$ L i želi uliti u od $\frac{5}{4}$ L. Koliko joj je boca potrebno?

$$13\frac{1}{3} : \frac{5}{4} = \frac{40}{3} \cdot \frac{5}{4} = \frac{8 \cdot 4}{3} \cdot \frac{5}{4} = \frac{8}{3} \cdot \frac{5}{1} = \frac{32}{3} = 10\frac{2}{3}$$

Potrebno joj je $10\frac{2}{3}$ boca.



$$4. \left(2\frac{1}{4} + 1\frac{1}{3} \right) : 1\frac{3}{4} =$$

$$= \left(\frac{9}{4} + \frac{4}{3} \right) : \frac{7}{4} =$$

$$= \left(\frac{27}{12} + \frac{16}{12} \right) : \frac{7}{4} =$$

$$= \frac{43}{12} : \frac{7}{4} = \frac{43}{12} \cdot \frac{4}{7} = \frac{43}{3} \cdot \frac{1}{7} = \frac{43}{21} = 2\frac{1}{21}$$

KVADRATI RAZLOMAKA

$$a^2 = a \cdot a$$

• kvadrirati znači pomnožiti broj sa samim sobom

$$1. \left(\frac{3}{7}\right)^2 = \frac{3}{7} \cdot \frac{3}{7} = \frac{9}{49}$$

$$\left(2\frac{3}{5}\right)^2 = \left(\frac{13}{5}\right)^2 = \frac{13}{5} \cdot \frac{13}{5} = \frac{169}{25}$$

$$\left(\frac{1}{2}\right)^2 = \frac{1}{2} \cdot \frac{1}{2} = \frac{1}{4}$$

$$\left(\frac{2}{3}\right)^2 = \frac{2}{3} \cdot \frac{2}{3} = \frac{4}{9}$$

$$\left(3\frac{1}{2}\right)^2 = \left(\frac{7}{2}\right)^2 = \frac{7}{2} \cdot \frac{7}{2} = \frac{49}{4} = 12\frac{1}{4}$$

$$2^2 - \left(\frac{1}{2}\right)^2 = 2 \cdot 2 - \frac{1}{2} \cdot \frac{1}{2} = 4 - \frac{1}{4} = 3\frac{3}{4}$$

$$\frac{5}{6}^2 = \frac{5 \cdot 5}{6 \cdot 6} = \frac{25}{6}$$

$$\frac{5}{6}^2 = \frac{5}{6 \cdot 6} = \frac{5}{36}$$

$$\left(\frac{1}{2}\right)^2 + \left(\frac{3}{4}\right)^2 = \frac{1}{2} \cdot \frac{1}{2} + \frac{3}{4} \cdot \frac{3}{4}$$

$$= \frac{1}{4} + \frac{9}{16}$$

$$= \frac{1}{4} + \frac{9}{16}$$

$$= \frac{4+9}{16} = \frac{13}{16}$$

$$\frac{2^2}{3} = \frac{2 \cdot 2}{3} = \frac{4}{3} = 1\frac{1}{3}$$

$$\frac{2}{3^2} = \frac{2}{3 \cdot 3} = \frac{2}{9}$$

2. Izračunaj površinu kvadrata čija je stranica duljine:

$$\begin{array}{cccc} \frac{5}{10} & \frac{3}{6} & \frac{8}{8} & \frac{7}{6} \\ \downarrow & \downarrow & \downarrow & \downarrow \\ \text{cm} & \text{m} & \text{dm} & \text{cm} \end{array}$$

q?

$$a = \frac{5}{10} \text{ cm}$$

$$P = a^2$$

$$P = a^2$$
$$P = \left(\frac{5}{10}\right)^2$$

$$P = \frac{1}{2} \cdot \frac{1}{2} = \frac{1}{4} \text{ cm}^2$$

$$a = \frac{3}{6} \text{ m}$$

$$P = a^2$$

$$P = a^2$$
$$P = \left(\frac{3}{6}\right)^2$$

$$P = \frac{1}{2} \cdot \frac{1}{2} = \frac{1}{4} \text{ m}^2$$

$$a = \frac{8}{8} \text{ dm}$$

$$P = a^2$$

$$P = a^2$$
$$P = \left(\frac{8}{8}\right)^2$$

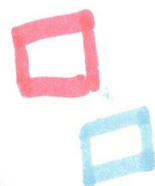
$$P = \frac{8}{8} \cdot \frac{8}{8} = \frac{64}{64} \text{ dm}^2 = 1 \text{ dm}^2$$

$$a = \frac{7}{6} \text{ cm}$$

$$P = a^2$$

$$P = a^2$$
$$P = \left(\frac{7}{6}\right)^2$$

$$P = \frac{7}{6} \cdot \frac{7}{6} = \frac{49}{36} \text{ cm}^2$$



$$\textcircled{1} \quad 100\% \text{ od } 68 = 1 \cdot 68 = 68$$

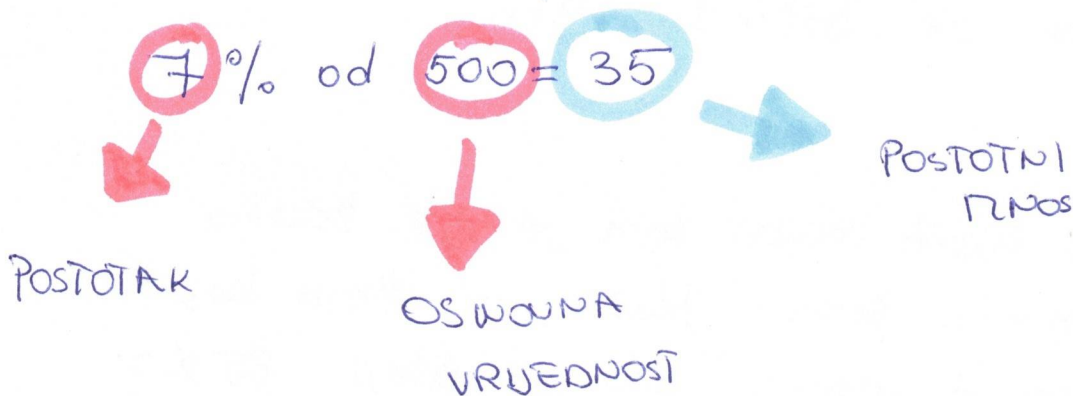
$$25\% \text{ od } 76 = \frac{25}{100} \cdot \frac{76}{1} = \frac{1}{4} \cdot \frac{76}{1} = 19$$

$$75\% \text{ od } 160 = \frac{75}{100} \cdot \frac{160}{1} = \frac{3}{4} \cdot \frac{160}{1} = 120$$

$$20\% \text{ od } 420 = \frac{20}{100} \cdot \frac{420}{1} = \frac{2}{5} \cdot \frac{420}{1} = 84$$

$$12\% \text{ od } 5 \text{ km} = \frac{12}{100} \cdot \frac{5}{1} \text{ km} = \frac{12 \cdot 3}{20 \cdot 5} = \frac{3}{5} \text{ km}$$

$$12\% \text{ od } 200 \text{ L} = \frac{12}{100} \cdot \frac{200}{1} \text{ L} = \frac{24}{1} = 24 \text{ L}$$



$$n\% = \frac{n}{100}$$

$$6\% \text{ od } 200 = \frac{6}{100} \cdot \frac{200}{1} = 12$$

$$12\% \text{ od } 500 = \frac{12}{100} \cdot \frac{500}{1} = 60$$

$$32\% \text{ od } 2800 = \frac{32}{100} \cdot \frac{2800}{1} = \frac{32 \cdot 28}{64} = 896$$
$$\begin{array}{r} + 256 \\ \hline 896 \end{array}$$

② 1 kg borovnica košta 40kn, 18,4. će biti na akciji -25%. Koliko će 18,4 borovnice koštati?

$$25\% \text{ od } 40 = \frac{25}{100} \cdot \frac{40}{1} = \frac{1}{4} \cdot \frac{40}{1} = 10$$

$$40\text{kn} - 10\text{kn} = 30\text{k}$$

18,4 borovnice će koštati 30kn.

③ Maja je željela kupiti majcu koja je bila 300kn. Imala je uštedevinu 200kn. Može li si Maja kupiti novu majcu? ako je majca bila na akciji 85%?

$$85\% \text{ od } 300 = \frac{85}{100} \cdot \frac{300}{1} = \frac{85 \cdot 3}{10}$$

Maja ne može kupiti majcu jer ima uštedevinu 200kn.