

# PREVERJANJE 7.

$$\text{mol. 1)} \quad \frac{1}{3} \cdot \frac{3}{4} = \frac{1 \cdot \cancel{3} \cdot 1}{\cancel{3} \cdot 4 \cdot 1} = \underline{\underline{\frac{1}{4}}}$$

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

$$\begin{aligned} \left(2 \cdot \frac{1}{8}\right) + \left(\frac{3}{4} : \frac{1}{4}\right) &= \left(\frac{\cancel{2} \cdot 1 \cdot 1}{1 \cdot \cancel{8} \cdot 4}\right) + \left(\frac{3 \cdot \cancel{4} \cdot 1}{4 \cdot 1 \cdot 1}\right) = \\ &= \frac{1}{4} + 3 = \underline{\underline{3\frac{1}{4}}} \end{aligned}$$

$$4\frac{1}{6} \cdot \frac{4}{5} = \frac{25}{6} \cdot \frac{4}{5} = \frac{\cancel{25} \cdot 4 \cdot 5 \cdot 2}{6 \cdot \cancel{5} \cdot 1 \cdot 3} = \frac{10}{3} = \underline{\underline{3\frac{1}{3}}}$$

$$5 \cdot 1\frac{1}{3} = 5 \cdot \frac{4}{3} = \frac{5 \cdot 4}{1 \cdot 3} = \frac{20}{3} = \underline{\underline{6\frac{2}{3}}}$$

$$\begin{aligned} 43 \cdot \frac{12}{50} + 57 \cdot \frac{12}{50} &= \frac{12}{50} \cdot (43 + 57) = \frac{12}{50} \cdot 100 = \\ &= \frac{12 \cdot \cancel{100} \cdot 2}{\cancel{50} \cdot 1 \cdot 1} = \\ &= \underline{\underline{24}} \end{aligned}$$

$$\begin{aligned} \text{mol. 2) a.) } 1,6 \cdot \left(1\frac{1}{4} + 7,5\right) &= \\ &= 1\frac{6}{10} \cdot \left(1\frac{1}{4} + 7\frac{5}{10}\right) = \\ &= 1\frac{6}{10} \cdot \left(1\frac{5}{20} + 7\frac{10}{20}\right) = \\ &= 1\frac{6}{10} \cdot 8\frac{15}{20} = \\ &= 1\frac{6}{10} \cdot 8\frac{3}{4} = \frac{\cancel{16} \cdot \cancel{35} \cdot 4 \cdot 7 \cdot 2}{\cancel{10} \cdot 4 \cdot 1 \cdot \cancel{2} \cdot 1} = \underline{\underline{14}} \end{aligned}$$

$$\begin{aligned}
b.) & \left( \left( 5\frac{7}{30} + 3\frac{4}{15} \right) : 4\frac{1}{4} \right) \cdot 8 = \\
& = \left( \left( 5\frac{7}{30} + 3\frac{8}{30} \right) : 4\frac{1}{4} \right) \cdot 8 = \\
& = \left( 8\frac{15}{30} : 4\frac{1}{4} \right) \cdot 8 = \\
& = \left( 8\frac{1}{2} : 4\frac{1}{4} \right) \cdot 8 = \\
& = \left( \frac{17 \cdot 4 \cdot 1 \cdot 2}{2 \cdot 17 \cdot 1 \cdot 1} \right) \cdot 8 = \\
& = 2 \cdot 8 = \\
& = \underline{\underline{16}}
\end{aligned}$$

$$\begin{aligned}
\text{mal. 3) a.)} & 35,2 - \left( \left( 4 + \frac{1}{4} \right) \cdot 8 \right) = \\
& = 35,2 - \left( 4\frac{1}{4} \cdot 8 \right) = \\
& = 35,2 - \left( \frac{17 \cdot 8 \cdot 2}{4 \cdot 1 \cdot 1} \right) = \\
& = 35,2 - 34 = \\
& = \underline{\underline{1,2}} = 1\frac{2}{10} = \underline{\underline{1\frac{1}{5}}}
\end{aligned}$$

$$\begin{aligned}
b.) & \frac{10}{19} \cdot \left( 1\frac{1}{5} \cdot \left( \frac{1}{2} + \frac{2}{3} \right) + \frac{1}{2} \right) = \\
& = \frac{10}{19} \cdot \left( 1\frac{1}{5} \cdot \left( \frac{3}{6} + \frac{4}{6} \right) + \frac{1}{2} \right) = \\
& = \frac{10}{19} \cdot \left( \frac{6}{5} \cdot \frac{7}{6} + \frac{1}{2} \right) = \\
& = \frac{10}{19} \cdot \left( \frac{6 \cdot 7 \cdot 1}{5 \cdot 6 \cdot 1} + \frac{1}{2} \right) = \\
& = \frac{10}{19} \cdot \left( \frac{7}{5} + \frac{1}{2} \right) = \\
& = \frac{10}{19} \cdot \left( \frac{14}{10} + \frac{5}{10} \right) = \\
& = \frac{10}{19} \cdot \frac{19}{10} = \\
& = \underline{\underline{1}}
\end{aligned}$$

mal. 4)

a.)  $2,5 \cdot x = 1\frac{3}{5}$

$$x = 1\frac{3}{5} : 2,5$$

$$x = 1\frac{3}{5} : 2\frac{1}{2}$$

$$x = \frac{8 \cdot 2}{5 \cdot 5}$$

$$x = \underline{\underline{\frac{16}{25}}}$$

b.)  $x : \frac{2}{3} = \frac{3}{4}$

$$x = \frac{3}{4} \cdot \frac{2}{3}$$

$$x = \frac{\cancel{3} \cdot 2 \cdot 1 \cdot 1}{4 \cdot \cancel{3} \cdot 1 \cdot 2}$$

$$x = \underline{\underline{\frac{1}{2}}}$$

c.)  $x \cdot \frac{1}{4} = 1\frac{3}{8}$

$$x = 1\frac{3}{8} : \frac{1}{4}$$

$$x = \frac{11}{8} : \frac{1}{4}$$

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

$$x = \frac{11}{2} = \underline{\underline{5\frac{1}{2}}}$$

mal. 5)  $25\% = \frac{25}{100} = \frac{1}{4}$

$$\overset{!100}{\curvearrowright} 32\% = 0,32$$

$$0,35 = \underset{\cdot 100}{\curvearrowright} 35\%$$

$$0,5\% = \frac{5}{1000} = \frac{1}{200} \quad 100\% = \frac{100}{100} = 1$$

$$\overset{!100}{\curvearrowright} 4,1\% = 0,041$$

$$\frac{3}{5} = \frac{60}{100} = 60\%$$

$$\overset{!100}{\curvearrowright} 103\% = 1,03$$

$$1,5 = \underset{\cdot 100}{\curvearrowright} 150\%$$

$$\text{mal. 6.) a.) } 45\% \text{ od } 600 = \frac{45}{100} \cdot 600 = \frac{45 \cdot 600 \cdot 6}{100 \cdot 1 \cdot 1} = 270$$

$$\text{b.) } 75\% \text{ od } 9200 = \frac{75}{100} \cdot 9200 = \frac{75 \cdot 9200 \cdot 92}{100 \cdot 1 \cdot 1} = 6900$$

$$\text{c.) } 35\% \text{ od } x = 1575$$

$$\frac{35}{100} \cdot x = 1575 \Rightarrow x = 1575 : \frac{35}{100} = \frac{1575 \cdot 100 \cdot 45}{1 \cdot 38 \cdot 1} = 4500$$

$$\text{d.) } p\% \text{ od } 400 = 240$$

$$\frac{240}{400} = \frac{24}{40} = \frac{6}{10} = \frac{60}{100} = \underline{\underline{60\%}}$$

$$\text{e.) } 5\% \text{ od } 24\text{g} = \frac{5 \cdot 24}{100 \cdot 1} = 1,2\text{g}$$

$$\text{f.) } 6\% \text{ od } x = 30\text{m}$$

$$x = 30 : \frac{6}{100} = \frac{30 \cdot 100}{1 \cdot 6} = \underline{\underline{500\text{m}}}$$

$$\text{g.) } \frac{18}{72} = \frac{2}{8} = \frac{1}{4} = \frac{25}{100} = 25\%$$

↑  
napíšim mu 100, da dobiš %

$$\text{mal. 4.) } 5\% \text{ od } 25\text{€} = \frac{5 \cdot 25 \cdot 1}{100 \cdot 1 \cdot 4} = \frac{5}{4} = 1,25\text{€}$$

Sladolec je stal 1,25€.

$$25 - 1,25 - 5 = 18,75$$

25€..... 100%

18,75€..... X%

$$x = \frac{100 \cdot 18,75}{25} = 75\%$$

Ostane mu 18,75€ žepnine,

kar je 75%.

nal. 8) 1. dan:  $\frac{5}{12}$  knjige  
 2. dan  $20\% = \frac{20}{100} = \frac{1}{5}$  knjige

Skupaj je 1. in 2. dan

prebral  $\frac{5}{12} + \frac{1}{5} = \frac{25}{60} + \frac{12}{60} = \frac{37}{60}$  knjige

Polovica knjige je  $\frac{30}{60}$ , torej je prebral  $\frac{7}{60}$  več kot je polovica, torej mi  $\frac{7}{60}$  predstavlja 21 strani. Zapisim račun:  $\frac{7}{60}$  od  $X = 21$

$$X = 21 : \frac{7}{60} = \frac{21 \cdot 60}{7} = \boxed{180 \text{ strani}}$$

nal. 9)  $280 \cdot 14 \text{ kg} = 3920 \text{ kg}$  masla bi radi izdelali

$$3920 \text{ kg} \dots 3,5\%$$

$$X \dots 100\%$$

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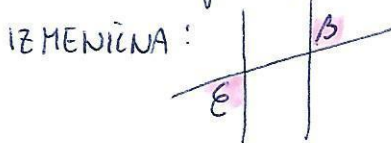

$$X = \frac{100 \cdot 3920}{3,5} = 112000 \text{ kg}$$

Potrebujejo 112000 l mleka.

nal. 10)

a.) SOVRŠNA:  $\alpha$  in  $\gamma$

SOKOTA:  $\gamma$  in  $\beta$



$$\alpha = 112^\circ$$

$$\beta = 68^\circ$$

$$\gamma = 112^\circ$$

c.) SOVRŠNA

$\beta$  in  $\gamma$

SOKOTA

$\alpha$  in  $\beta$

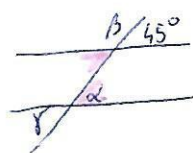
$$\alpha = 122^\circ$$

$$\beta = 58^\circ$$

$$\gamma = 58^\circ$$

b.) SOVRŠNA:

$\alpha$  in  $\gamma$



SOKOTA:  $\beta$  in  $45^\circ$

IZMENIČNA:

$$\alpha = 45^\circ$$

$$\beta = 135^\circ$$

$$\gamma = 45^\circ$$

mul. 11)

$$\alpha + \beta + \gamma = 180^\circ$$

$$\gamma = 180^\circ - 70^\circ - 45^\circ$$

$$\gamma = 65^\circ$$

$\delta = 65^\circ$  her  $\delta$  sovriem  $\gamma$ .

**UTRJEVANJE ODSOTKI** – računanje odstotkov, računanje deleža, računanje celote, besedilne naloge



**1. naloga: Izrazi v odstotkih:**

a)  $0,13 = 13\%$

b)  $0,02 = 2\%$

c)  $0,476 = 47,6\%$

d)  $0,7 = 70\%$

e)  $1,28 = 128\%$

f)  $\frac{90}{100} = 90\%$

g)  $\frac{43}{100} = 43\%$

h)  $\frac{7}{100} = 7\%$

i)  $\frac{6}{10} = \frac{60}{100} = 60\%$

j)  $\frac{23}{10} = \frac{230}{100} = 230\%$

k)  $\frac{17}{20} = \frac{85}{100} = 85\%$

l)  $\frac{2}{3} = 2:3 = 0,666 = 66,6\%$

**2. naloga: Izrazi v odstotkih:**

a) 6 učencev od 20 učencev:

$\frac{6}{20} = \frac{30}{100} = 30\%$

b) 13 € od 50 €:

$\frac{13}{50} = \frac{26}{100} = 26\%$

c) 450 m od 5 km:

$\frac{450}{5000} = \frac{45}{500} = \frac{9}{100} = 9\%$

**3. naloga: Dopolni stavke, da bodo izjave pravilne:**

a) 40% od 600 kg = 240 kg  
 $\frac{40}{100} \cdot 600 = \frac{40 \cdot 600}{100} = 240$

c) 125% od 500€ = 625 €  
 $\frac{125}{100} \cdot 500 = \frac{125 \cdot 500}{100} = 625$

b) 75% od 1667 m = 1250 m  
 $1250 : \frac{75}{100} = \frac{1250 \cdot 100}{75} = 1667$   
OBA NAČINA STA OK.

č) 8% od 25 km = 2 km  
 $8\% \dots 2 \text{ km}$   
 $100\% \dots X \text{ km}$   
 $X = \frac{2 \cdot 100}{8} = 25$

4. naloga: Od 32 učencev nekega razreda jih 8 obiskuje likovni krožek, 6 jih je pri pevskem zboru, 12 jih je pri logiki, ostali pa so pri literarnem krožku. Koliko % učencev je pri posamezni dejavnosti?

$\frac{8}{32} = \frac{1}{4} = \frac{25}{100} = 25\%$  likovni

$\frac{6}{32} = \frac{3}{16} = 3:16 = 0,1875 = 18,75\%$  pevski

$\frac{12}{32} = \frac{6}{16} = 6:16 = 0,375 = 37,5\%$  logiko

ostane jih 6  
 $\frac{6}{32} = 18,75\%$  literarni

5. naloga: Posestvo meri 400 ha. 30% predstavljajo pašniki, 25% predstavljajo njive, 20 ha je vinogradov, ostalo pa je gozd. Koliko ha je gozda in koliko % predstavljajo vinogradi?

30% od 400 =  $\frac{30}{100} \cdot 400 = 120$  ha pašnikov

25% od 400 =  $\frac{25}{100} \cdot 400 = 100$  ha njiv

$400 \text{ ha} - 120 \text{ ha} - 100 \text{ ha} - 20 \text{ ha} = 160 \text{ ha}$  je gozda

Gozda je 160 ha, vinogradov je 5%.

20 ha ... x%  
 400 ha ... 100%  
 $x = \frac{20 \cdot 100}{400} = 5\%$

6. naloga: Iz skladišča so v trgovino pripeljali 8 ton krompirja, kar je 16% vsega krompirja. Koliko ton krompirja je bilo v skladišču?

$$\begin{array}{r} 8 \text{ t} \dots 16\% \\ x \text{ t} \dots 100\% \\ \hline x = \frac{8 \cdot 100 \cdot 1}{16 \cdot 1} = \underline{\underline{50 \text{ t}}} \end{array}$$

7. naloga: Prvi dan so posejali s pšenico 8 ha njive, to je 40% cele njive. Koliko ha meri cela njiva?

$$\begin{array}{r} 8 \text{ ha} \dots 40\% \\ x \text{ ha} \dots 100\% \\ \hline x = \frac{100 \cdot 8}{40} = \underline{\underline{20 \text{ ha}}} \end{array}$$

8. naloga: Miha, ki je imel 20 metrov dolg zalet, ga je na tekmovanju zmanjšal za 15%. Koliko je meril njegov novi zalet?

$$15\% \text{ od } 20 \text{ m} = \frac{15 \cdot 20 \cdot 1}{100 \cdot 1} = 3 \text{ m}$$

$$20 \text{ m} - 3 \text{ m} = 17 \text{ m}$$

Njegov zalet meri 17 m.

9. naloga: V veleblagovnici so plašč, ki stane 220€ najprej podražili za 15%, nato pa na razprodaji ceno znižali za 15%. Koliko je plašč stal na razprodaji?

$$15\% \text{ od } 220 \text{ €} = \frac{15 \cdot 220}{100 \cdot 1} = 33 \text{ €}$$

$$220 \text{ €} + 33 \text{ €} = 253 \text{ €}$$

$$15\% \text{ od } 253 \text{ €} = \frac{15 \cdot 253}{100 \cdot 1} = 37,95 \text{ €}$$

$$253 \text{ €} - 37,95 \text{ €} = 215,05 \text{ €}$$

Plašč je na razprodaji stal 215,05 €.