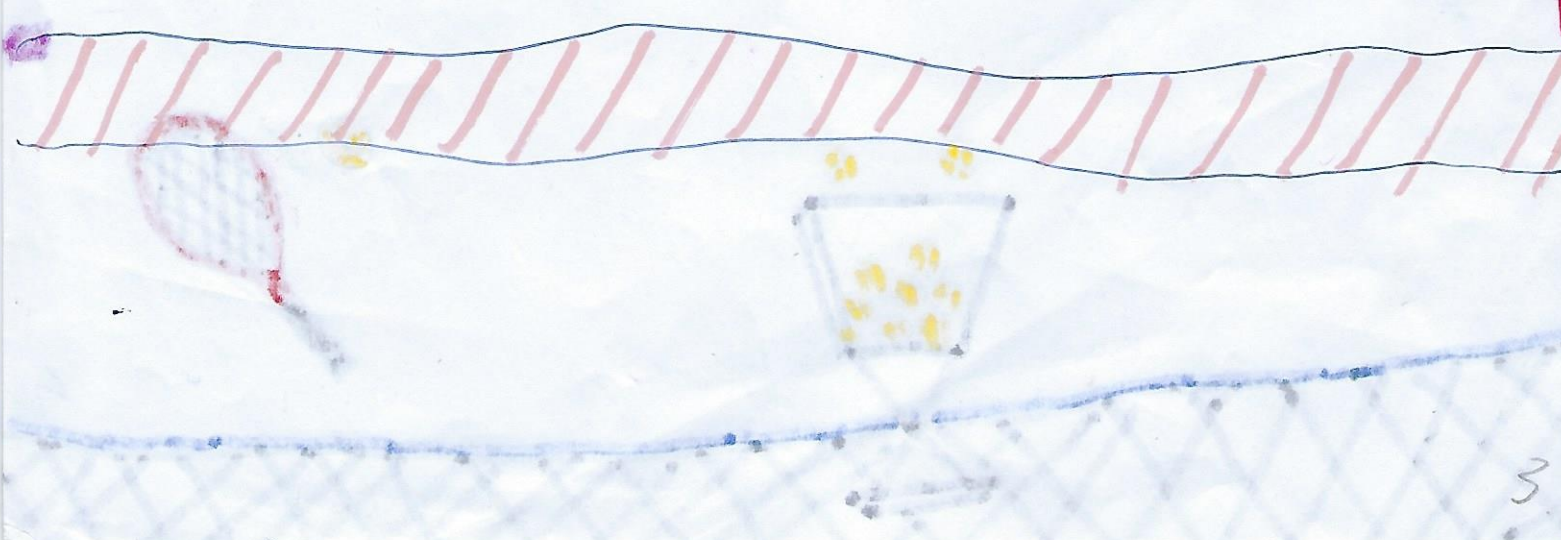
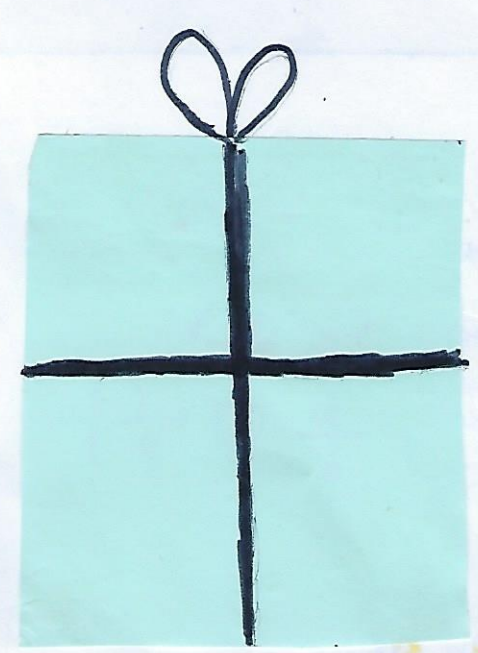
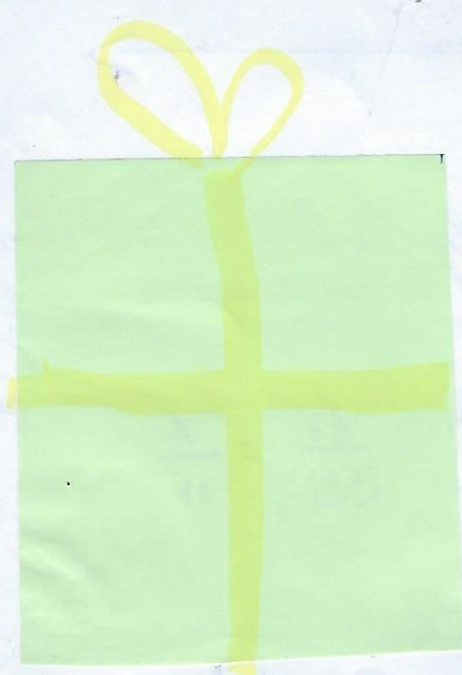
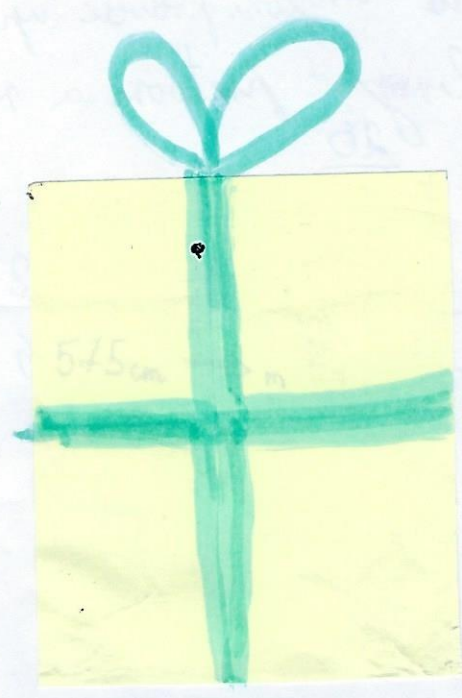


Svojenje razlomaka na  
zajednički nazivnik

Leonarda Žapanić  
6.6



4. Otvori poklone i riješi zadatke!





5. Na brojevni pravcu upiši određene razlomke i potrebni decimalni brojeve pretvori u razlomak. Zatim sve dolivene razlomke odvrzni s  $\frac{20}{4}$

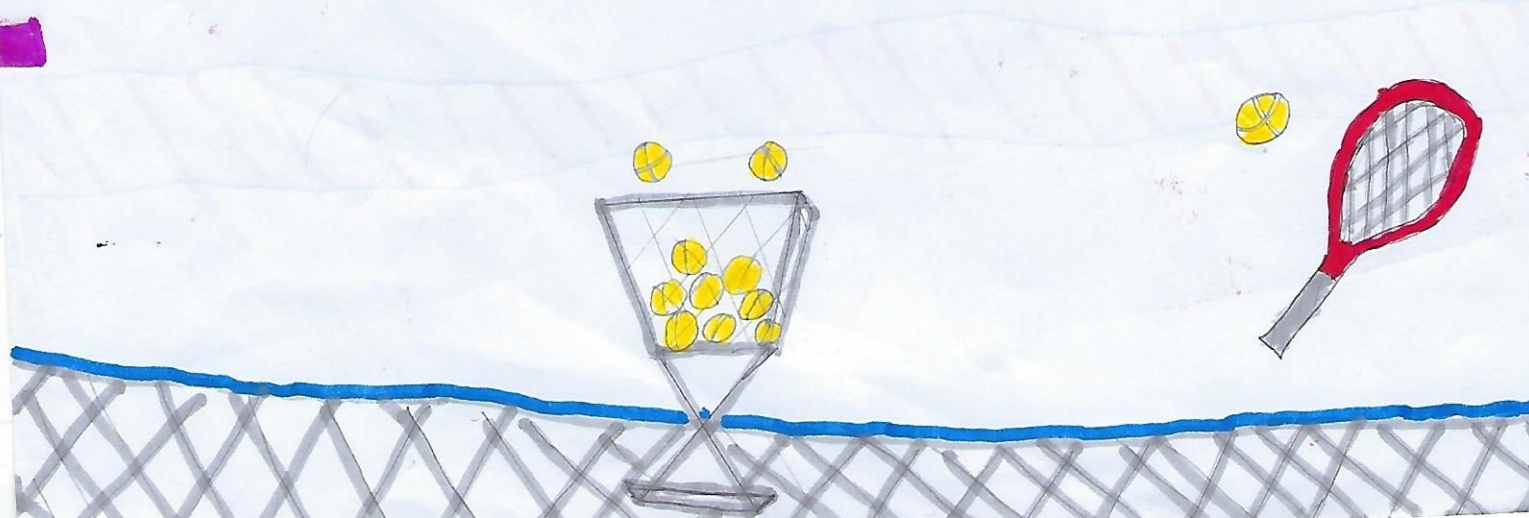
$$\frac{6}{2}, \frac{3}{4}, 0.25, \frac{5}{2}, \frac{8}{4}$$



6. Na teniskom terenu je bilo  $\frac{30}{8}$  loptica. Lana je stavila u košaricu  $\frac{1}{2}$  loptica, a Marko  $\frac{6}{4}$  loptica. Koliko još loptica treba pokupiti na teniskom terenu tako da bi napunili košaricu do kraja?

RAČUN:

ODGOVOR:





11d) Količnik razlomaka  $\frac{48}{32}$  i  $\frac{64}{12}$  povećaj s do-  
 bičenim razlomkom  $\left(\frac{12}{2} - \frac{24}{4}\right)$

RAČUN:

5

9

b) Umnožak brojeva  $\frac{70}{28}$  i  $\frac{140}{49}$ , podijeli s  $5 \frac{16}{14}$

RAČUN:

7

$\frac{64}{64}$      $\frac{x}{x}$     8     $155 \frac{7}{9}$     20  
 ?     $\frac{3}{20}$   
 10    1    5    ?  
 $\frac{x}{x} = \frac{x}{x}$



9. Promil je razlomak s nazivnikom \_\_\_\_\_

• Skraćivanjem razlomka njegova vrijednost \_\_\_\_\_

• Brojnik i nazivnik neskrativog razlomka relativno su \_\_\_\_\_

- [edutorij.e-skole.hr](http://edutorij.e-skole.hr)

10. Sustav zadane razlomke u tablicu i saznaj je li taj razlomak skrativ, ili neskrativ.

$$\frac{15}{305}$$

$$\frac{543}{257}$$

$$\frac{28}{4}$$

$$\frac{2}{2203}$$

$$\frac{156}{153}$$

$$\frac{26}{13}$$

$$\frac{750}{3}$$

$$\frac{240}{48}$$

SKRATIV	NESKRATIV



# Rođendan!

7. Aurora je svoj 13 rođendan odlučila slaviti doma. Za tortu Aurora je platila 122 kn, ukruse 500 lipa, a njezin tata je potrošio za gročkalice 45 kn, stim da je morao voziti do tog najbližeg dućana 3355 m, da bi sve mogli kupiti.

a) Pretvori ove zadane brojeve u: kn  $\rightarrow$  lp, lp  $\rightarrow$  kn, m  $\rightarrow$  km tako da je zapisano u razlomcima te ih potom skvati do najmanjeg zajedničkog nazivnika.

b) Koliko su kn zajedno potrošili?

ODGOVOR:

RACUN:





8. Pogodi koliko Valerija, Ivan, Ružica, Kamen i Mia imaju godina ta-  
ko da skрати zadane razlomke te ih pretvoriš u mješoviti broj.

a) VALERIJA: Razlomak  $\frac{361}{24}$

a)  $1\frac{1}{2}$

b)  $1\frac{2}{1}$

c)  $2\frac{3}{4}$

b) IVAN: Razlomak  $\frac{450}{755}$

a)  $2\frac{2}{5}$

b)  $3\frac{4}{5}$

c)  $1\frac{13}{17}$

c) RUŽICA: Razlomak  $\frac{755}{125}$

a)  $5\frac{5}{15}$

b)  $6\frac{4}{25}$

c)  $7\frac{3}{15}$





d) **KARMEN**: Rozlomak  $\frac{546}{325}$

a)  $1 \frac{221}{325}$

b)  $1 \frac{231}{325}$

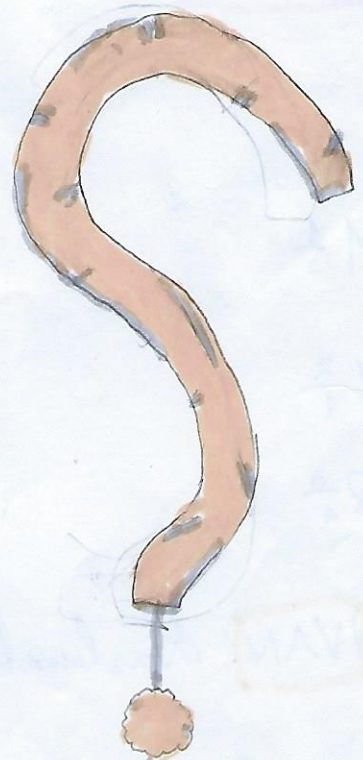
c)  $1 \frac{45}{20}$

e) **MIA**: Rozlomak  $\frac{3795}{1755}$

a)  $2 \frac{41}{255}$

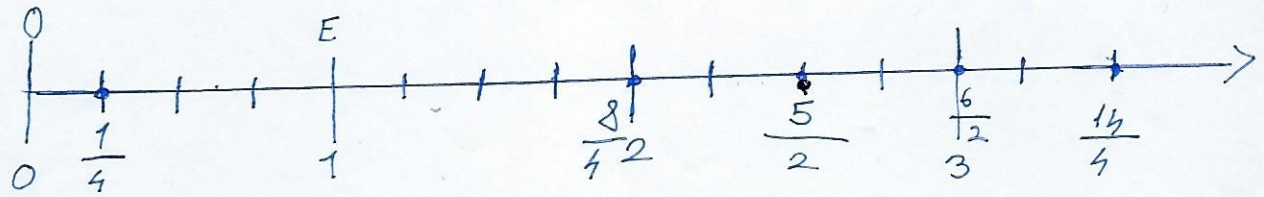
b)  $2 \frac{57}{351}$

c)  $2 \frac{27}{404}$





5. 0:



$$\cdot \frac{6}{2} = \frac{6 \cdot 2}{2 \cdot 2} = \frac{12}{4} = \frac{20}{4} - \frac{12}{4} = \frac{8}{4} \cdot \frac{5}{2} = \frac{5 \cdot 2}{2 \cdot 2} = \frac{10}{4} = \frac{20}{4} - \frac{10}{4} = \frac{10}{4}$$

$$\cdot \frac{14}{4} = \frac{14}{4} = \frac{20}{4} - \frac{14}{4} = \frac{6}{4}$$

$$\cdot \frac{8}{4} = \frac{8}{4} = \frac{20}{4} - \frac{8}{4} = \frac{12}{4}$$

$$\cdot 0.25 = \frac{25}{100} = \frac{25 \cdot 25}{100 \cdot 25} = \frac{1}{4} = \frac{20}{4} - \frac{1}{4} = \frac{19}{4}$$

6. 0:

$$\frac{6}{4} + \frac{2}{2} = \frac{6}{4} + \frac{4}{4} = \frac{10}{4}$$

$$\frac{12}{5} \cdot \frac{30}{8} = \frac{10}{4} = \frac{30}{8} \cdot \frac{1}{4} = \frac{3}{2}$$

Lucija treba pokupiti još

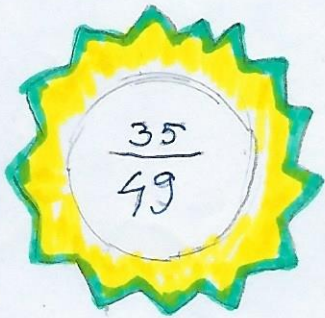
$\frac{3}{2}$  optica.



# Djeljivost i razlomci

## 1. Potrebna - Božić

1. Potrebna razlomka koje nisu skraćeni skрати te ih sve svedi na najmanji zajednički nazivnik.


$$\frac{35}{49}$$


$$\frac{555}{55}$$


$$\frac{462}{222}$$


$$\frac{65}{45}$$

2. Maja i njezina mama cijele su  $\frac{155}{36}$  kolača. Za kolače su potrošile 1.75 l mlijeka, 2.25 dag brašna,  $\frac{28}{4}$  g bijelog šećera, 10% smeđeg šećera i 15% maslaca. Pretvori u razlomke te ih skрати. Izračunaj koliko su Maja i njezina mama potrošile šećera za kolače.

ODGOVOR:

RAČUN:





3. Ako môžeš skrati  
vozlonček!





$$3) \frac{40}{150} = \frac{40:5}{150:5} = \frac{8}{30} = \frac{8:2}{30:2} = \frac{4}{15}$$

$$\frac{30}{6} = \frac{30:6}{6:6} = \frac{5}{1} = 5$$

$$\frac{23}{15}$$

$$\frac{375}{372} = \frac{375:3}{372:3} = \frac{125}{124} = 1 \frac{1}{124}$$

$$\frac{99}{74} = \frac{99:11}{74:11} = \frac{9}{7} = 1 \frac{2}{7}$$

$$\frac{53}{44}$$

$$\frac{111}{273} = \frac{111:3}{273:3} = \frac{37}{91}$$

$$\frac{58}{21}$$

$$\frac{22}{10} = \frac{22:2}{10:2} = \frac{11}{5} = 2 \frac{1}{5}$$

$$\frac{75}{25} = \frac{75:25}{25:25} = \frac{3}{1} = 3$$

$$\frac{953}{11}$$

$$\frac{28}{44} = \frac{28:2}{44:2} = \frac{14}{22} = \frac{14:2}{22:2} = \frac{7}{11}$$

$$\frac{56}{4} = \frac{56:2}{4:2} = \frac{28}{2} = \frac{28:2}{2:2} = \frac{14}{1} = 14$$

$$4) d) \left( \frac{5}{6} - \frac{2}{26} \right) : \frac{3}{21} =$$

$$= \left( \frac{70}{84} - \frac{8}{84} \right) : \frac{3}{21} =$$

$$= \frac{62}{84} : \frac{3}{21} =$$

$$= \frac{62}{84} \cdot \frac{21}{3} = \frac{434}{84} = 5 \frac{14}{84}$$

$$d) 1 \frac{3}{9} < \frac{15}{8}$$

$$\frac{27}{9} > \frac{15}{8}$$

$$b) 575 \text{ cm} = \frac{575}{1000} = 0.575 \text{ m}$$

$$c) \frac{x}{15} = \frac{63}{135} = \frac{x}{15} \cdot \frac{x \cdot 9}{15 \cdot 9} = \frac{63}{135}$$

$$x = 7$$



# RJEŠENJA

1.

$$\frac{35}{49} = \frac{35:7}{49:7} = \frac{5}{7}$$

$$\frac{555}{55} = \frac{555:5}{55:5} = \frac{111}{11} = 10 \frac{1}{11}$$

$$\frac{462}{222} = \frac{462:3}{222:3} = \frac{154}{74} = \frac{154:2}{74:2} = \frac{77}{37} = 2 \frac{3}{37}$$

$$\frac{65}{45} = \frac{65:5}{45:5} = \frac{13}{9} = 1 \frac{4}{9}$$

$$462:3 = 154$$

$$16$$

$$12$$

$$00$$

$$222:3 = 74$$

$$12$$

$$00$$

2.  $\frac{155}{30}$

$$1.75\text{ l} = \frac{75}{100} = \frac{75:25}{100:25} = 1 \frac{3}{4} \text{ l} - \text{mlijeko}$$

$$\frac{28}{7} = \frac{4}{1}$$

$$2.25 \text{ dg} = \frac{25}{100} = \frac{25:25}{100:25} = 2 \frac{1}{4} \text{ dg} - \text{črnašica}$$

$$\frac{28}{7} - \text{č. šećer}$$

$$\frac{4}{1} + \frac{1}{10} = 4 \frac{1}{10} \text{ dg}$$

$$10\% = \frac{10}{100} = \frac{10:5}{100:5} = \frac{2}{20} = \frac{2:2}{20:2} = \frac{1}{10} \text{ dg} - \text{š. šećera}$$

$$15:10 = \frac{15}{10} = \frac{15:5}{10:5} = \frac{3}{2} - \text{maslaca}$$

O: Maja i njezina mama potrošile su  $4 \frac{1}{10}$  g šećera za kolače.



$$7 \quad a) \quad 122 \text{ kn} = \frac{122}{100} = \frac{122:2}{100:2} = \frac{61}{50} = 1 \frac{11}{50} \text{ kn}$$

$$500 \text{ kn} = \frac{500}{100} = \frac{500:5}{100:5} = \frac{100}{20} = \frac{10:2}{2:2} = \frac{5}{1} = 5 \text{ kn}$$

$$45 \text{ kn} = \frac{45}{100} = \frac{45:5}{100:5} = \frac{9}{20} \text{ kn}$$

$$3355 \text{ kn} = \frac{3355}{10000} = \frac{3355:5}{10000:5} = \frac{671}{2000} = 3 \frac{71}{200} \text{ kn}$$

$$b) \quad \begin{array}{r} 122 \\ + 45 \\ + 5 \\ \hline 172 \end{array}$$

O: Zajedno su potrošili 172 kn.

8.

$$a) \text{ VALERIJA: } a) 1 \frac{1}{2} \quad \text{POSTUPAK: } \frac{36}{24} = 1 \frac{12}{24} = 1 \frac{1}{2}$$

$$b) \text{ IVAN: } c) 1 \frac{13}{17} \quad \text{POSTUPAK: } \frac{450}{255} = \frac{450:5}{255:5} = \frac{90}{51} = \frac{90:3}{51:3} = \frac{30}{17} = 1 \frac{13}{17}$$

$$c) \text{ RUŽICA: } b) 6 \frac{4}{25} \quad \text{POSTUPAK: } \frac{765}{125} = \frac{765:5}{125:5} = \frac{153}{25} = 6 \frac{4}{25}$$

$$d) \text{ KARMEN: } a) 1 \frac{221}{325} \quad \text{POSTUPAK: } \frac{546}{325} = 1 \frac{221}{325}$$

$$e) \text{ MIA: } b) 2 \frac{57}{351} \quad \text{POSTUPAK: } \frac{3735}{1755} = \frac{3735:5}{1755:5} = \frac{747}{351} = 2 \frac{57}{351}$$

$$\begin{array}{r} 1 \ 351 \\ \hline 702 \end{array}$$



- 9.
- Brojnik je razlomak s nazivnikom 1000
  - Skraćivanjem razlomka njegova vrijednost ostaje ista.
  - Brojnik i nazivnik neskratioog razlomka relativno su prosti brojevi.
- edutorij.e-skola.hr

10.

SKRATIV		NESKRATIV	
$\frac{15}{305}$	$\frac{28}{4}$	$\frac{543}{257}$	$\frac{2}{2203}$
$\frac{156}{153}$	$\frac{26}{13}$	$\frac{240}{49}$	
$\frac{750}{3}$			



$$11) \text{ d) } \frac{50}{5} \cdot \frac{50:5}{5:5} = \frac{10}{1} = \text{d) } \frac{48}{32} \cdot \frac{64}{12} = \frac{32}{48} \cdot \frac{42}{8} = \frac{90}{32} = 3 \frac{3}{9}$$

$$\left( \frac{12 \cdot 6}{2 \cdot 1} - \frac{24}{4} \right) = \frac{\left( \frac{12 \cdot 6}{2 \cdot 1} - \frac{24}{4} \right)}{\left( \frac{24}{4} - \frac{24}{4} \right)} = \frac{\left( \frac{72}{2} - \frac{24}{4} \right)}{\left( \frac{24}{4} - \frac{24}{4} \right)} = \frac{\frac{6}{1}}{\frac{1}{4}} = \frac{24}{1} = \frac{1}{24} + \frac{9}{32} = 24 \frac{9}{32}$$

$$\frac{209}{24} \cdot \frac{17}{24} = \frac{3553}{576}$$

$$\text{e) } \frac{10}{28} \cdot \frac{440}{49} = \frac{50}{7} \cdot \frac{86}{16} = \frac{50}{7} \cdot \frac{16}{86} = \frac{400}{301} = 1 \frac{99}{301}$$

