Ponavljanje na početku 8. razreda
Složeniji računski zadaci s racionalnim brojevima
Antonija Horvatek
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Ponavljanje - složeniji računski zadaci s racionalnim brojevima

Ovo su zadaci koje radimo nakon jednostavnijih zadataka
koje smo pomoću PPT prezentacije ponovili samo usmeno.
Naravno, ove složenije zadatke rješavamo pismeno -
na ploču, odnosno u bilježnice.

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Ponavljanje - računski zadaci s racionalnim brojevima

1.) Izračunaj:

a) $\dfrac{-1}{-2} + \dfrac{2}{-3} = \dfrac{1}{2} - \dfrac{2}{3} = \dfrac{3-4}{6} = \dfrac{-1}{6}$
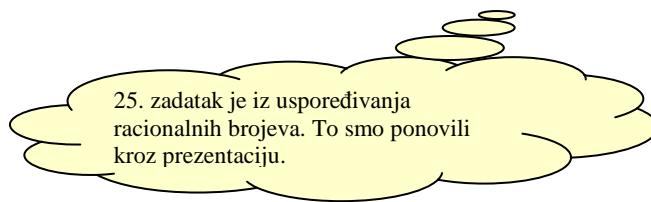
DZ   P   19, 25

b) $\dfrac{-1}{-2} \cdot \dfrac{2}{-3} = \dfrac{1}{\cancel{2}_1} \cdot \dfrac{-\cancel{2}^{1}}{3} = \dfrac{-1}{3}$

25. zadatak je iz uspoređivanja racionalnih brojeva. To smo ponovili kroz prezentaciju.

2.) Izračunaj:

a) $\dfrac{3}{-5} + 1 - 2\dfrac{1}{2} + 0.3 =$

$= \dfrac{-3}{5} + \dfrac{1}{1} - \dfrac{5}{2} + \dfrac{3}{10} =$

DZ   P   20

$= \dfrac{-6 + 10 - 25 + 3}{10} =$

$= \dfrac{13 - 31}{10} =$

$= \dfrac{-18}{30} =$

$= -1\dfrac{\cancel{8}^{4}}{\cancel{10}_{5}} = -1\dfrac{4}{5}$

b) $-0.63 \cdot 1\dfrac{21}{54} \cdot (-3.2) \cdot \dfrac{5}{-72} = \dfrac{-\cancel{63}^{7}}{\cancel{100}_{\cancel{4}_1}} \cdot \dfrac{\cancel{75}^{\cancel{3}^1}}{\cancel{54}_{\cancel{6}_2}} \cdot \dfrac{-\cancel{32}^{\cancel{4}^1}}{\cancel{10}_2} \cdot \dfrac{-\cancel{5}^1}{\cancel{72}_9} = \dfrac{-7}{36}$

3.) Izračunaj:

a) $\dfrac{-3}{8} \cdot 6 - \dfrac{9}{2} : \dfrac{27}{-17} =$

$= \dfrac{-3}{\cancel{8}} \cdot \dfrac{\cancel{6}}{1} - \dfrac{\cancel{9}}{2} \cdot \dfrac{-17}{\cancel{27}} =$

DZ   P   21

$= \dfrac{-9}{4} + \dfrac{17}{6} =$

$= \dfrac{-27 + 34}{12} =$

$= \dfrac{7}{12}$

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b) $\quad -2\dfrac{1}{2} - 0.3 - \underline{\dfrac{4}{7} : \dfrac{-4}{21}} =$

$= \dfrac{-5}{2} - \dfrac{3}{10} - \dfrac{\cancel{4}}{\cancel{7}} \cdot \dfrac{\cancel{-21}}{\cancel{4}} =$

$= \dfrac{-5}{2} - \dfrac{3}{10} + \dfrac{3}{1} =$

$= \dfrac{-25 - 3 - 30}{10} =$

$= \dfrac{-58}{10} =$

$= -5\dfrac{\cancel{8}}{\cancel{10}} =$

$= -5\dfrac{4}{5}$

4.) Izračunaj:

a) $\quad -1 - \left(\dfrac{8}{9} - \dfrac{-1}{3} \right) \cdot \left(-1 + \dfrac{1}{4} \right) =$

$= -1 - \left(\dfrac{8}{9} + \dfrac{1}{3} \right) \cdot \left(\dfrac{-1}{1} + \dfrac{1}{4} \right) =$

$= -1 - \dfrac{\boxed{8+3}}{9} \cdot \dfrac{\boxed{-4+1}}{4} =$

$= -1 - \dfrac{11}{\cancel{9}} \cdot \dfrac{-\cancel{3}}{4} =$

$= -1 + \dfrac{11}{12} =$

$= \dfrac{-1}{12}$

DZ P 22

b) $\quad 3 : \dfrac{-6}{11} - \left(\dfrac{-1}{5} - 1 \right) : \left(0.5 : \dfrac{5}{8} \right) =$

$= \dfrac{\cancel{3}}{1} \cdot \dfrac{-11}{\cancel{6}} - \dfrac{\boxed{-1-5}}{5} : \left(\dfrac{1}{\cancel{2}} \cdot \dfrac{\cancel{8}}{5} \right) =$

$= \dfrac{-11}{2} - \dfrac{-6}{5} : \dfrac{4}{5} =$

$= \dfrac{-11}{2} - \dfrac{-\cancel{6}}{\cancel{5}} \cdot \dfrac{\cancel{5}}{\cancel{4}} =$

$= \dfrac{-11}{2} + \dfrac{3}{2} = \dfrac{-8}{2} = \text{-4}$

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5.) Izračunaj:

a) $\dfrac{2}{5} \cdot \left(-0.75 - 0.8 : \dfrac{1}{2} \right) =$

$= \dfrac{2}{5} \cdot \left(\dfrac{-3}{4} - \dfrac{8}{10} \cdot \dfrac{2}{1} \right) =$

$= \dfrac{2}{5} \cdot \left(\dfrac{-3}{4} - \dfrac{8}{5} \right) =$

$= \dfrac{2}{5} \cdot \dfrac{\boxed{-15 - 32}}{20} =$

$= \dfrac{2}{5} \cdot \dfrac{-47}{20} =$

$= \dfrac{-47}{50}$

$\boxed{\textbf{DZ}}$ P 23

b) $-1\dfrac{3}{4} + \left[\dfrac{7}{8} - \dfrac{11}{12} : \left(\dfrac{2}{3} + \dfrac{1}{4} \right) + \dfrac{1}{12} \right] \cdot 6 =$

$= \dfrac{-7}{4} + \left[\dfrac{7}{8} - \dfrac{11}{12} : \dfrac{\boxed{8+3}}{12} + \dfrac{1}{12} \right] \cdot 6 =$

$= \dfrac{-7}{4} + \left[\dfrac{7}{8} - \dfrac{11}{12} : \dfrac{11}{12} + \dfrac{1}{12} \right] \cdot 6 =$

$= \dfrac{-7}{4} + \left[\dfrac{7}{8} - \dfrac{1}{1} + \dfrac{1}{12} \right] \cdot 6 =$

$= \dfrac{-7}{4} + \dfrac{\boxed{21 - 24 + 2}}{24} \cdot 6 =$

$= \dfrac{-7}{4} + \dfrac{-1}{24} \cdot \dfrac{6}{1} =$

$= \dfrac{-7}{4} - \dfrac{1}{4} =$

$= \dfrac{-8}{4} = \text{-2}$

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c) $\dfrac{1}{2} - \left\{ \dfrac{1}{2} + \left[\dfrac{-1}{2} - \left(\dfrac{1}{2} - \dfrac{1}{2} \right) - \dfrac{1}{2} \right] + \dfrac{1}{2} \right\} =$

$= \dfrac{1}{2} - \left\{ \dfrac{1}{2} + \left[\dfrac{-1}{2} - 0 - \dfrac{1}{2} \right] + \dfrac{1}{2} \right\} =$

$= \dfrac{1}{2} - \left\{ \dfrac{1}{2} + \left[-1 \right] + \dfrac{1}{2} \right\} =$

$= \dfrac{1}{2} - \left\{ \dfrac{1}{2} - 1 + \dfrac{1}{2} \right\} =$

$= \dfrac{1}{2} - \left\{ 1 - 1 \right\} =$

$= \dfrac{1}{2} - 0 =$

$= \dfrac{1}{2}$

6.) Sredi:

a) $\dfrac{\tfrac{2}{21}}{\tfrac{3}{7}} = \dfrac{\cancel{14}}{\cancel{63}} = \dfrac{2}{9}$

b) $\dfrac{\tfrac{-7}{-3}}{-2} = \dfrac{\tfrac{-7}{-3}}{\tfrac{-2}{1}} = \dfrac{-7}{6} = -1\dfrac{1}{6}$

DZ   P   24

c) $\dfrac{3\tfrac{1}{2}}{1 - 0.5} = \dfrac{\tfrac{7}{2}}{0.5} = \dfrac{\tfrac{7}{2}}{\tfrac{1}{2}} = \dfrac{14}{2} = 7$

d) $1 + \dfrac{1 - \tfrac{3}{7}}{2 - \tfrac{-27 : 9}{1 - 3}} = 1 + \dfrac{\tfrac{4}{7}}{2 - \tfrac{-3}{-2}} = 1 + \dfrac{\tfrac{4}{7}}{2 - \tfrac{3}{2}} = 1 + \dfrac{\tfrac{4}{7}}{2 - 1\tfrac{1}{2}} = 1 + \dfrac{\tfrac{4}{7}}{\tfrac{1}{2}} =$

$= 1 + \dfrac{8}{7} = 1 + 1\dfrac{1}{7} = 2\dfrac{1}{7}$

e) $\dfrac{0.8}{2.11} = \dfrac{80}{211}$ (decimalne točke u brojniku i nazivniku pomaknemo za jednak broj mjesta udesno)

f) $\dfrac{5.3}{7} = \dfrac{53}{70}$

g) $\dfrac{6}{0.01} = \dfrac{600}{1} = 600$