

NASTAVNI SAT IZ MATEMATIKE

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NASTAVNA JEDINKA: Dijeljenje racionalnih brojeva – ponavljanje

DATUM: 18.3.2020.

RAZRED: VII.

Zadatak 1: Od količnika brojeva -49 i $-4\frac{2}{3}$ oduzmi količnik brojeva -5 i $-\frac{1}{2}$.

Rješenje:

$$\left(-49 : \left(-4\frac{2}{3}\right)\right) - \left(-5 : \left(-\frac{1}{2}\right)\right) = \left(-49 : \left(-\frac{14}{3}\right)\right) - \left(-5 \cdot (-2)\right) = \left(-\frac{49}{1} \cdot \left(-\frac{3}{14}\right)\right) - 10 = \frac{147}{14} - 10 = \frac{147 - 140}{14} = \frac{7}{14} = \frac{1}{2}$$

Zadatak 2: Izračunaj:

a) $\frac{3}{4} - 1\frac{1}{5} : 0.3 + 1\frac{1}{2}$
b) $\frac{1}{3} - (-1) : \frac{3}{4} + \frac{4}{5} : \left(-1\frac{1}{15}\right)$

Rješenje:

a) $\frac{3}{4} - 1\frac{1}{5} : 0.3 + 1\frac{1}{2} = \frac{3}{4} - \frac{6}{5} : \frac{3}{10} + \frac{3}{2} = \frac{3}{4} - \cancel{\frac{6}{5}} \cdot \frac{10}{3} + \frac{3}{2} = \frac{3}{4} - \frac{4}{1} + \frac{3}{2} = \frac{3-16+6}{4} = \frac{9-16}{4} = \frac{-7}{4} = -1\frac{3}{4}$
b) $\frac{1}{3} - (-1) : \frac{3}{4} + \frac{4}{5} : \left(-1\frac{1}{15}\right) = \frac{1}{3} - (-1) \cdot \frac{4}{3} + \frac{4}{5} : \left(-\frac{16}{15}\right) = \frac{1}{3} + \frac{4}{3} + \cancel{\frac{4}{5}} \cdot \left(-\frac{15}{16}\right) = \frac{1}{3} + \frac{4}{3} - \frac{3}{4} = \frac{4+16-9}{12} = \frac{11}{12}$

Zadatak 3: Izračunaj:

a) $2\frac{1}{2} - \left(-\frac{1}{2}\right) - \frac{3}{4} : 2 - \frac{3}{4}$
b) $-0.7 - \frac{3}{4} : (-6) + \frac{2}{5} : \frac{1}{3}$

Rješenje:

a) $2\frac{1}{2} - \left(-\frac{1}{2}\right) - \frac{3}{4} : 2 - \frac{3}{4} = \frac{5}{2} + \frac{1}{2} - \frac{3}{4} \cdot \frac{1}{2} - \frac{3}{4} = \frac{5}{2} + \frac{1}{2} - \frac{3}{8} - \frac{3}{4} = \frac{20+4-3-6}{8} = \frac{15}{8} = 1\frac{7}{8}$
b) $-0.7 - \frac{3}{4} : (-6) + \frac{2}{5} : \frac{1}{3} = -\frac{7}{10} - \frac{3}{4} : \left(-\frac{6}{1}\right) + \frac{2}{5} \cdot \frac{3}{1} = -\frac{7}{10} - \cancel{\frac{3}{4}} \cdot \left(-\frac{1}{6}\right) + \frac{6}{5} = -\frac{7}{10} + \frac{1}{8} + \frac{6}{5} = \frac{-28+5+48}{40} = \frac{25}{40} = \frac{5}{8}$

Zadatak 4: Izračunaj:

a) $\left(\frac{5}{6} \cdot 0.3 - 2 : \frac{4}{3}\right) + 2$
b) $3.5 \cdot 2 - \left(\frac{3}{8} : \frac{3}{4} - 0.5\right)$

Rješenje:

a) $\left(\frac{5}{6} \cdot 0.3 - 2 : \frac{4}{3}\right) + 2 = \left(\frac{5}{6} \cdot \frac{3}{10} - \frac{2}{1} \cdot \frac{3}{4}\right) + 2 = \left(\frac{1}{4} - \frac{3}{2}\right) + 2 = \frac{1-6}{4} + 2 = \frac{-5}{4} + 2 = \frac{-5+8}{4} = \frac{3}{4}$
b) $3.5 \cdot 2 - \left(\frac{3}{8} : \frac{3}{4} - 0.5\right) = 7 - \left(\frac{7}{8} \cdot \frac{4}{3} - \frac{1}{2}\right) = 7 - \left(\frac{1}{2} - \frac{1}{2}\right) = 7 - 0 = 7$

Zadatak 5: Izračunaj:

a) $-\frac{3}{10} : \frac{1}{2} + \frac{3}{4} : 2\frac{1}{2}$
b) $-1 - \left(\frac{7}{8} : 3.5 + 2 : \frac{1}{2}\right) + \frac{3}{4}$

Rješenje:

a) $-\frac{3}{10} : \frac{1}{2} + \frac{3}{4} : 2\frac{1}{2} = -\frac{3}{10} \cdot \frac{2}{1} + \frac{3}{4} : \frac{5}{2} = -\frac{3}{5} + \frac{3}{4} \cdot \cancel{\frac{2}{5}} = -\frac{3}{5} + \frac{3}{10} = \frac{-6+3}{10} = -\frac{3}{10}$
b) $-1 - \left(\frac{7}{8} : 3.5 + 2 : \frac{1}{2}\right) + \frac{3}{4} = -1 - \left(\frac{7}{8} : \frac{35}{10} + 2 \cdot 2\right) + \frac{3}{4} = -1 - \left(\frac{7}{8} \cdot \cancel{\frac{2}{35}} + 4\right) + \frac{3}{4} = -1 - \left(\frac{1}{4} + 4\right) + \frac{3}{4} = -1 - \frac{1}{4} - 4 + \frac{3}{4} = \frac{-4-1-16+3}{4} = \frac{-18}{4} = \frac{-9}{2} = -4\frac{1}{2}$

PREPISATI PRIMJERE ZADATAKA S RJEŠENJIMA U ŠKOLSKU BILJEŽNICU!

Zadatci rađeni u ovoj pripremi su 16., 19 (a,d), 20 (a,d), 21 (a, d) i 22 (a, d) iz udžbenika na 178. i 179. stranici, a za zadaću uraditi 14., 15., 20.(b, c), 21. (b,c)