

NASTAVNI SAT IZ MATEMATIKE-

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NASTAVNA JEDINKA: Ponavljanje

DATUM: 19.3.2020.

RAZRED: VII.

Zadatak 1: Izračunaj:

$$a) \left(\frac{4}{5} - \frac{29}{30} + \frac{1}{15}\right) : \left(\frac{29}{30} - \frac{1}{15} - \frac{4}{5}\right)$$

$$b) \left(\frac{1}{3} \cdot 2\frac{2}{5} + \frac{2}{5}\right) : \left(\frac{2}{3} \cdot 2.4 - 1.2\right)$$

$$c) \frac{8}{9} : 1\frac{1}{3} - \left(\frac{7}{8} \cdot \frac{4}{7} - \frac{5}{9} : 3\frac{1}{3}\right)$$

Rješenje:

$$a) \left(\frac{4}{5} - \frac{29}{30} + \frac{1}{15}\right) : \left(\frac{29}{30} - \frac{1}{15} - \frac{4}{5}\right) = \left(\frac{24-29+2}{30}\right) : \left(\frac{29-2-24}{30}\right) = \frac{-3}{30} : \frac{3}{30} = \frac{-3}{30} \cdot \frac{30}{3} = -1$$

$$b) \left(\frac{1}{3} \cdot 2\frac{2}{5} + \frac{2}{5}\right) : \left(\frac{2}{3} \cdot 2.4 - 1.2\right) = \left(\frac{1}{3} \cdot \frac{12}{5} + \frac{2}{5}\right) : \left(\frac{2}{3} \cdot \frac{24}{10} - \frac{12}{10}\right) = \left(\frac{4}{5} + \frac{2}{5}\right) : \left(\frac{8}{5} - \frac{6}{5}\right) = \frac{6}{5} : \frac{2}{5} = \frac{6}{5} \cdot \frac{5}{2} = 3$$

$$c) \frac{8}{9} : 1\frac{1}{3} - \left(\frac{7}{8} \cdot \frac{4}{7} - \frac{5}{9} : 3\frac{1}{3}\right) = \frac{8}{9} : \frac{4}{3} - \left(\frac{1}{2} - \frac{5}{9} : \frac{10}{3}\right) = \frac{8}{9} : \frac{4}{3} - \left(\frac{1}{2} - \frac{5}{9} \cdot \frac{3}{10}\right) = \frac{8}{9} : \frac{4}{3} - \left(\frac{1}{2} - \frac{1}{6}\right) = \frac{8}{9} : \frac{4}{3} - \left(\frac{3-1}{6}\right) = \frac{8}{9} \cdot \frac{3}{4} - \frac{2}{6} = \frac{2}{3} - \frac{1}{3} = \frac{1}{3}$$

Zadatak 2: Koji je broj $\frac{7}{10}$ puta veći od zbroja brojeva $\frac{3}{14}, \frac{5}{21}$ i $-\frac{7}{42}$?

Rješenje:

$$\frac{7}{10} \cdot \left(\frac{3}{14} + \frac{5}{21} + \left(-\frac{7}{42}\right)\right) = \frac{7}{10} \cdot \left(\frac{9+10-7}{42}\right) = \frac{7}{10} \cdot \frac{12}{42} = \frac{7}{10} \cdot \frac{1}{3} = \frac{1}{5}$$

Zadatak 3: Izračunaj površinu kvadrata kojemu je opseg $1\frac{3}{4}$ m.

Rješenje:

$$o = 1\frac{3}{4} m = \frac{7}{4} m$$

$$P = ?$$

$$a = o : 4$$

$$a = \frac{7}{16} m$$

$$P = a \cdot a$$

$$a = \frac{7}{4} m : 4$$

$$P = \frac{7}{16} m \cdot \frac{7}{16} m$$

$$o = 4 \cdot a$$

$$a = \frac{7}{4} m \cdot \frac{1}{4}$$

$$P = \frac{49}{256} m^2$$

Zadatak 4: Izračunaj:

- a) $208: \left[112 - \frac{4}{23} \cdot \left(\frac{1}{10} : 0.001 - \frac{45}{7} : \frac{5}{42} \right) \right]$
- b) $\left\{ \left(\frac{3}{4} - \frac{5}{6} \right) : \frac{1}{3} - \left[1\frac{3}{4} - \left(\frac{1}{2} - \frac{4}{3} \right) \cdot 12 \right] : 3\frac{1}{2} \right\} + 1$
- c) $\left\{ \left(\frac{1}{3} - \frac{4}{5} \right) : \frac{2}{5} - \left[\frac{5}{4} - \left(\frac{1}{2} - \frac{3}{4} \right) \cdot 6 \right] : 1\frac{3}{4} \right\} - 1$

Rješenje:

- a) $208: \left[112 - \frac{4}{23} \cdot \left(\frac{1}{10} : 0.001 - \frac{45}{7} : \frac{5}{42} \right) \right] = 208: \left[112 - \frac{4}{23} \cdot \left(\frac{1}{10} : \frac{1}{1000} - \frac{45}{7} \cdot \frac{42}{5} \right) \right] =$
 $208: \left[112 - \frac{4}{23} \cdot \left(\frac{1}{10} \cdot \frac{1000}{1} - 54 \right) \right] = 208: \left[112 - \frac{4}{23} \cdot (100 - 54) \right] = 208: \left[112 - \frac{4}{23} \cdot 46 \right] =$
 $208: [112 - 8] = 208: 104 = 2$
- b) $\left\{ \left(\frac{3}{4} - \frac{5}{6} \right) : \frac{1}{3} - \left[1\frac{3}{4} - \left(\frac{1}{2} - \frac{4}{3} \right) \cdot 12 \right] : 3\frac{1}{2} \right\} + 1 = \left\{ \left(\frac{9-10}{12} \right) : \frac{1}{3} - \left[\frac{7}{4} - \left(\frac{3-8}{6} \right) \cdot 12 \right] : \frac{7}{2} \right\} + 1 =$
 $\left\{ -\frac{1}{12} : \frac{1}{3} - \left[\frac{7}{4} - \left(\frac{-5}{6} \right) \cdot 12 \right] : \frac{7}{2} \right\} + 1 = \left\{ -\frac{1}{4} - \left[\frac{7}{4} + 10 \right] : \frac{7}{2} \right\} + 1 = \left\{ -\frac{1}{4} - \left[\frac{7+40}{4} \right] : \frac{7}{2} \right\} + 1 =$
 $\left\{ -\frac{1}{4} - \frac{47}{4} : \frac{7}{2} \right\} + 1 = \left\{ -\frac{1}{4} - \frac{47}{4} \right\} + 1 = \frac{-7-94}{28} + 1 = \frac{-101}{28} + 1 = \frac{-101+28}{28} = \frac{-73}{28} = -2\frac{17}{28}$
- c) $\left\{ \left(\frac{1}{3} - \frac{4}{5} \right) : \frac{2}{5} - \left[\frac{5}{4} - \left(\frac{1}{2} - \frac{3}{4} \right) \cdot 6 \right] : 1\frac{3}{4} \right\} - 1 = \left\{ \left(\frac{5-12}{15} \right) : \frac{2}{5} - \left[\frac{5}{4} - \left(\frac{2-3}{4} \right) \cdot 6 \right] : \frac{7}{4} \right\} - 1 =$
 $\left\{ \left(\frac{-7}{15} \right) : \frac{2}{5} - \left[\frac{5}{4} - \left(\frac{-1}{4} \right) \cdot 6 \right] : \frac{7}{4} \right\} - 1 = \left\{ \frac{-7}{15} : \frac{2}{5} - \left[\frac{5}{4} + \frac{3}{2} \right] : \frac{7}{4} \right\} - 1 = \left\{ \frac{-7}{15} : \frac{2}{5} - \left[\frac{5+6}{4} \right] : \frac{7}{4} \right\} - 1 =$
 $\left\{ \frac{-7}{15} : \frac{2}{5} - \frac{11}{4} : \frac{7}{4} \right\} - 1 = \left\{ \frac{-7}{6} - \frac{11}{7} \right\} - 1 = \left\{ \frac{-49-66}{42} \right\} - 1 = \frac{-115}{42} - 1 = \frac{-115-42}{42} = \frac{-157}{42} = -3\frac{31}{42}$

PREPISATI PRIMJERE ZADATAKA S RJEŠENJIMA U ŠKOLSKU BILJEŽNICU!

Za zadaću uraditi 23. (a,c) zadatak u udžbeniku na 179. stranici i u zbirci zadataka na 62. Stranici 14. (c,d) i 15. (b,d) zadatak.