

PRIPREMA ZA 1. PISMENU PROVJERU ZNANJA

1.a) Zadani su skupovi $A = \{x \in \mathbb{N} / x \text{ je neparan broj manji od } 15\}$, $B = \{x \in \mathbb{N} / 3 \leq x < 10\}$ $C = \{x \in \mathbb{Z} / -4 \leq x < 5\}$

a) $A \cap B, C \cap B$ b) $A \cup B, A \cup C, C \cup B$ c) $A \setminus C,$

b) Nađi uniju i presjek skupova: $A = \{x \in \mathbb{N} / 2 \leq x < 12\}$ $B = \{x \in \mathbb{N} / 9 < x \leq 10\}$

c) Nađi uniju i presjek skupova: $A = \{x \in \mathbb{N} / 3 < x \leq 12\}$ $B = \{x \in \mathbb{Z} / -2 < x < 5\}$

d) Zadani su skupovi: $A = \{x \in \mathbb{N} / x \leq 13\}$ $B = \{x \in \mathbb{N} / x < 8\}$ Izračunaj $A \setminus B$ i $B \setminus A$

e) Zadani su skupovi: $A = \{x \in \mathbb{N} / x \leq 12\}$ $B = \{x \in \mathbb{N} / 8 < x \leq 17\}$
 Nađite: a) $A \cup B$ b) $A \cap B$ c) $A \setminus B$ d) $B \setminus A$ e) $(A \setminus B) \cup (B \setminus A)$

2. Odredi najveću zajedničku mjeru i najmanji zajednički višekratnik

a) $M(16, 24, 32)$ b) $M(10, 250, 30)$ c) $M(13, 26, 156)$
 $V(16, 24, 32)$ $V(10, 250, 30)$ $V(13, 26, 156)$

d) $M(28, 56, 140)$ e) $M(150, 90, 36)$ f) $M(3, 2, 15)$
 $V(28, 56, 140)$ $V(150, 90, 36)$ $V(3, 2, 15)$

3. Izračunaj

a) $4 - 4 \cdot \{5 - 4 \cdot [-10 - 4 \cdot (2 - 12)]\}$ b) $(-24) : 3 - (-2) \cdot (-6) - 81 : (-9) =$ c) $-(15 - 19) \cdot 3 + (20 - 12) : 4 + 2 =$

d) $4 \cdot [15 - 15 \cdot (21 \cdot 4 - 32 \cdot 3)] : 15 =$ e) $-(51 : 3 - 3) : 2 + 2 \cdot (5 - 11) + 7 =$ f) $14 \cdot \{18 + 2 \cdot [14 \cdot 2 - (-10) \cdot 3]\} =$

g) $13 - [(29 - 8) : 7 - 32] - 5 =$ h) $(23 - 5) : (-3) - 4 \cdot [-17 - (-22)] =$ i) $(13 - 5) \cdot (-3) - 3 \cdot [-13 - (-26)] =$

4.a) $\frac{1}{3} + \left[\frac{1}{3} - \left(\frac{1}{6} - \frac{1}{9} \right) \right] \cdot \frac{27}{2}$ b) $\left(\frac{7}{2} + \frac{1}{3} \right) : \frac{35}{42} + \frac{7}{42} =$ c) $\left(\frac{3}{14} : \frac{2}{7} + \frac{5}{8} \cdot \frac{2}{15} \right) \cdot 24$ d) $\left(\frac{7}{6} \cdot \frac{9}{14} - \frac{1}{12} \right) : \left(\frac{4}{7} - \frac{55}{9} \cdot \frac{6}{77} \right) =$

e) $\frac{1}{3} - 1 \cdot \frac{5}{6} + \frac{1}{12} - 3 =$ f) $\frac{1}{2} + \left[\frac{1}{2} - \left(\frac{1}{4} - \frac{1}{8} \right) \right] \cdot \frac{5}{2} =$ g) $\left[2 \frac{2}{3} - \left(\frac{1}{5} + \frac{1}{2} \right) \right] - \frac{1}{4} =$ h) $\frac{1}{5} - 1 \cdot \frac{5}{3} + \frac{1}{15} - 2 =$

i) $\left(\frac{5}{21} : \frac{2}{15} + \frac{3}{8} \cdot \frac{4}{21} \right) \cdot 14 =$ j) $\frac{\frac{1}{6} - \frac{1}{2} + 1}{\frac{2}{3} - \frac{1}{4} + 2} \cdot \frac{29}{4} =$ k) $\frac{\frac{5}{3} + \frac{3}{5}}{\frac{1}{3} - \frac{4}{5} + \frac{1}{2}} \cdot \frac{1}{17} =$ l) $\frac{\frac{1}{8} + 2 \cdot \frac{9}{4}}{\frac{1}{8} + 4} : \frac{37}{33} =$

m) $\frac{3 + 4 \cdot 2 : 0.1}{\left(1 : 0.3 - \frac{7}{3} \right) \cdot 0.3125} =$ n) $\frac{3 + \frac{4}{25} + 0.59}{\left(\frac{3}{4} - 0.15 \right) : 4} =$ o) $\frac{0.75 + \left(\frac{1}{3} + 0.5 \right) : \frac{5}{9}}{\left(\frac{2}{3} - 0.4 + \frac{1}{6} \right) \cdot 2.5 - \frac{1}{12}} =$

5. Poredaj po veličini od najmanjeg do najvećeg

a) $\frac{36}{7}, \frac{39}{8}, \frac{23}{14}, \frac{101}{28}$ b) $-\frac{23}{11}, -\frac{111}{11}, -\frac{43}{11}, -1, -9$ c) $\frac{4}{5}, -\frac{7}{5}, \frac{11}{3}, -\frac{8}{3}, \frac{6}{7}, -\frac{12}{7}$

5. Pretvori u razlomak

a) $1.00\dot{4}\dot{5}$ b) $2.0\dot{4}$ c) $1.7\dot{5}$ d) $0.0\dot{1}\dot{3}$ e) $0.2\dot{0}\dot{5}$ f) $7.2\dot{2}$ g) $1.1\dot{6}$

Pretvori u razlomak i izračunaj h) $0.6\dot{3} - 1.4 =$ i) $1.\dot{6} + 0.\dot{7} =$ j) $5.1\dot{8} - 3\frac{1}{3} + 0.2\dot{3} =$

6. Prikaži u decimalnom zapisu

a) $\frac{9}{4}, -\frac{143}{8}, \frac{137}{25}, \frac{101}{10}$ b) $\frac{9}{4}, -\frac{143}{8}, \frac{137}{25}, \frac{101}{10}$ c) $\frac{2}{9}, -\frac{17}{15}, \frac{71}{18}, \frac{18}{7}$

7. Prikaži na brojevnom pravcu

a) $0.6, -1.4, -5.2, 4.8, 1.7$ (duljina jedinične dužine je 1 cm) b) $\frac{1}{4}, -\frac{2}{3}, \frac{7}{2}, \frac{20}{9}$ (duljina jedinične dužine je 4 cm)

c) $\frac{1}{4}, -\frac{2}{3}, \frac{7}{2}, \frac{20}{9}$ Pretvori u decimalni broj, zaokruži na desetinu i prikaži na brojevnom pravcu. (duljina jedinične dužine je 1 cm)