

PONAVLJANJE IZ PRIRODNIH I CIJELIH BROJEVA

ZADACI:

Zadatak 1. Izračunaj:

a) (2 boda) $9 + 8 \cdot 2 =$

b) (4 boda) $6 + 3 \cdot (4 + 5 \cdot 3) =$

c) (6 boda) $5 + 4 \cdot [7 + 3 \cdot (8 + 2 \cdot 3)] =$

d) (8 boda) $8 + 5 \cdot \{4 + 5 \cdot [2 + 4 \cdot (1 + 6 \cdot 7)]\} =$

Zadatak 2. (4 boda) Rastavi broj 294 na proste faktore

Zadatak 3. (4 boda) Odredi najveći zajednički djelitelj i najmanji zajednički višekratnik brojeva 30 i 105.

Zadatak 4. Izračunaj:

a) (3 boda) $9 \cdot (-5) - 48 : (-8) =$

b) (4 boda) $-3 - 5 \cdot (-7 - 4 \cdot (-2)) =$

c) (6 boda) $-7 - 6 \cdot [-3 - 5 \cdot (-9 - 6 \cdot (-3))] =$

Zadatak 5. (7 boda) Za $a = -3$, $b = -6$, $c = -8$ izračunaj: $3a - 9b + 4c$.

Kriterij ocjenjivanja:

0 – 18	(1)
19 – 25	(2)
26 – 33	(3)
34 – 40	(4)
41 – 48	(5)

RJEŠENJA:

Zadatak 1.

$$\begin{aligned} \text{a)} \quad & 9 + 8 \cdot 2 = \\ & = 9 + 16 = \\ & = 25 \end{aligned}$$

$$\begin{aligned} \text{b)} \quad & 6 + 3 \cdot (4 + 5 \cdot 3) = \\ & = 6 + 3 \cdot (4 + 15) = \\ & = 6 + 3 \cdot 19 = \\ & = 6 + 57 = \\ & = 63 \end{aligned}$$

$$\begin{aligned} \text{c)} \quad & 5 + 4 \cdot [7 + 3 \cdot (8 + 2 \cdot 3)] = \\ & = 5 + 4 \cdot [7 + 3 \cdot (8 + 6)] = \\ & = 5 + 4 \cdot [7 + 3 \cdot 14] = \\ & = 5 + 4 \cdot [7 + 42] = \\ & = 5 + 4 \cdot 49 = \\ & = 5 + 196 = \\ & = 201 \end{aligned}$$

$$\begin{aligned}
\text{d)} \quad & 8 + 5 \cdot \{4 + 5 \cdot [2 + 4 \cdot (1 + 6 \cdot 7)]\} = \\
& = 8 + 5 \cdot \{4 + 5 \cdot [2 + 4 \cdot (1 + 42)]\} = \\
& = 8 + 5 \cdot \{4 + 5 \cdot [2 + 4 \cdot 43]\} = \\
& = 8 + 5 \cdot \{4 + 5 \cdot [2 + 172]\} = \\
& = 8 + 5 \cdot \{4 + 5 \cdot 174\} = \\
& = 8 + 5 \cdot \{4 + 870\} = \\
& = 8 + 5 \cdot 874 = \\
& = 8 + 4370 = \\
& = 4378
\end{aligned}$$

Zadatak 2.

$$\begin{array}{r|l}
294 & 2 \\
147 & 3 \\
49 & 7 \\
7 & 7 \\
1 &
\end{array}
\qquad
\left(\begin{array}{l}
294 : 2 = 147 \\
147 : 3 = 49 \\
49 : 7 = 7 \\
7 : 7 = 1
\end{array} \right)$$

$$294 = 2 \cdot 3 \cdot 7 \cdot 7$$

Zadatak 3.

$$\begin{array}{r|l}
30, 105 & 3 \\
10, 35 & 5 \\
2, 7 &
\end{array}
\qquad
\left(\begin{array}{l}
30 : 3 = 10, 105 : 3 = 35 \\
10 : 5 = 2, 35 : 5 = 7
\end{array} \right)$$

$$nzd(30,105) = 3 \cdot 5 = 15$$

$$nzv(30,105) = 3 \cdot 5 \cdot 2 \cdot 7 = 210$$

Zadatak 4.

$$\begin{aligned} \text{a)} \quad & 9 \cdot (-5) - 48 : (-8) = \\ & = -45 + 6 = \\ & = -39 \end{aligned}$$

$$\begin{aligned} \text{b)} \quad & -3 - 5 \cdot (-7 - 4 \cdot (-2)) = \\ & = -3 - 5 \cdot (-7 + 8) = \\ & = -3 - 5 \cdot 1 = \\ & = -3 - 5 = \\ & = -8 \end{aligned}$$

$$\begin{aligned} \text{c)} \quad & -7 - 6 \cdot [-3 - 5 \cdot (-9 - 6 \cdot (-3))] = \\ & = -7 - 6 \cdot [-3 - 5 \cdot (-9 + 18)] = \\ & = -7 - 6 \cdot [-3 - 5 \cdot 9] = \\ & = -7 - 6 \cdot [-3 - 45] = \\ & = -7 - 6 \cdot (-48) = \\ & = -7 + 288 = \\ & = 281 \end{aligned}$$

Zadatak 5.

$$\begin{aligned} & 3a - 9b + 4c = \\ & = 3 \cdot (-3) - 9 \cdot (-6) + 4 \cdot (-8) = \\ & = -9 + 54 - 32 = \\ & = 13 \end{aligned}$$