

UTRJEVANJE ENAČB Z OKLEPAJI IN ULOMKI

9.A

ZN1 str. 103/20.c)

$$25 - (7 - 4y) = 3y + (-3 - 20y)$$

$$25 - 7 + 4y = 3y - 3 - 20y$$

$$4y - 3y + 20y = -3 - 25 + 7$$

$$21y = -21 \quad /: 21$$

$$\underline{\underline{y = -1}}$$

ODPRAVIMO OKLEPAJE

ČLENE Z NEZNANKO
PRESTAVIMO NA LEVO STRAN,
ŠTEVILA PA NA DESNO STR.

SKRČIMO OBE STRANI ENAČBE
IN DELIMO S KOEFICIENTOM
PRED NEZNANKO.

Pr.: L: $25 - (7 - 4 \cdot (-1)) =$
 $= 25 - (7 - (-4)) =$
 $= 25 - (7 + 4) =$
 $= 25 - 11 =$
 $= \underline{\underline{14}}$

D: $3 \cdot (-1) + (-3 - 20 \cdot (-1)) =$
 $= -3 + (-3 - (-20)) =$
 $= -3 + (-3 + 20) =$
 $= -3 + 17 =$
 $= \underline{\underline{14}}$

$L = D$, zato $R = \{-1\}$

ZN1 str. 103/21.č)

$$\underline{\underline{4(x+4) - 5(x+1) = 2(2x+7)}}$$

$$4x + 16 - 5x - 5 = 4x + 14$$

$$\cancel{4x} - 5x - \cancel{4x} = 14 - 16 + 5$$

$$-5x = 3 \quad /: (-5)$$

$$x = -\frac{3}{5}$$

ODPRAVIMO MNOŽENJA

Pr.: L: $4 \cdot (-\frac{3}{5} + 4) - 5 \cdot (-\frac{3}{5} + 1) =$
 $= 4 \cdot (-\frac{3}{5} + \frac{20}{5}) - 5 \cdot (-\frac{3}{5} + \frac{5}{5}) =$
 $= 4 \cdot \frac{17}{5} - 5 \cdot \frac{2}{5} =$
 $= \frac{4 \cdot 17}{1 \cdot 5} - \frac{5 \cdot 2 \cdot 1}{1 \cdot 5 \cdot 1} =$
 $= \frac{68}{5} - 2 =$
 $= \frac{68}{5} - \frac{10}{5} = \frac{58}{5} = \underline{\underline{11 \frac{3}{5}}}$

D: $2 \cdot (2 \cdot (-\frac{3}{5}) + 7) =$
 $= 2 \cdot (-\frac{2 \cdot 3}{1 \cdot 5} + 7) =$
 $= 2 \cdot (-\frac{6}{5} + 7) =$
 $= 2 \cdot (-\frac{6}{5} + \frac{35}{5}) =$
 $= 2 \cdot \frac{29}{5} =$
 $= \frac{2 \cdot 29}{5} =$
 $= \frac{58}{5} = \underline{\underline{11 \frac{3}{5}}}$

$L = D$, $R = \{-\frac{3}{5}\}$

ZN1 Str. 103/22. a)

$$\underline{(6-a)(a-2) - 8 = (6+a)(6-a)}$$

$$6a - 12 - a^2 + 2a - 8 = 36 - a^2$$

$$\cancel{-a^2 + a^2} + 6a + 2a = 36 + 8 + 12$$

$$8a = 56$$

$$\underline{a = 7}$$

$$\begin{aligned} \text{Pr. L: } & \underline{(6-7) \cdot (7-2) - 8 =} \\ & \underline{= (-1) \cdot 5 - 8 =} \\ & \underline{= -5 - 8 =} \\ & \underline{= -13} \end{aligned}$$

$$\begin{aligned} \text{D: } & (6+7)(6-7) = \\ & = 13 \cdot (-1) = \\ & = \underline{-13} \end{aligned}$$

$$L=D, \mathcal{R} = \{7\}$$

ZN1 Str. 103/22. ö)

$$\underline{(x+2)^2 - (x+1)^2 = 11 - (x-4)}$$

$$x^2 + 4x + 4 - (x^2 + 2x + 1) = 11 - x + 4$$

$$\cancel{x^2 + 4x + 4} - \cancel{x^2} - 2x - 1 = 11 - x + 4$$

$$4x - 2x + x = 11 + 4 - 4 + 1$$

$$3x = 12$$

$$\underline{x = 4}$$

$$\begin{aligned} \text{Pr. L: } & (4+2)^2 - (4+1)^2 = \\ & = 6^2 - 5^2 = \\ & = 36 - 25 = \\ & = \underline{11} \end{aligned}$$

$$\begin{aligned} \text{D: } & 11 - (4-4) = \\ & = 11 - 0 = \\ & = \underline{11} \end{aligned}$$

$$L=D, \mathcal{R} = \{4\}$$

ZN 1 str. 103 / 23. c)

$$\frac{7x}{10} - \frac{x}{2} = 1 + \frac{x}{4} \quad | \cdot 20$$

$$\frac{\cancel{20} \cdot 7x \cdot \cancel{2}}{\cancel{10} \cdot 1} - \frac{\cancel{20}x \cdot 10}{\cancel{2} \cdot 1} = 20 \cdot 1 + \frac{\cancel{20} \cdot x \cdot 5}{4 \cdot 1} \quad \left(\begin{array}{l} \text{TE VRSTICE} \\ \text{NI TREBA PISATI} \end{array} \right)$$

$$14x - 10x = 20 + 5x$$

$$14x - 10x - 5x = 20$$

$$-1x = 20$$

$$\text{Pr. L: } \frac{7 \cdot \cancel{(-20)} \cdot \cancel{(-2)}}{\cancel{10} \cdot 1} - \frac{\cancel{(-20)}}{2} =$$

$$= -14 - (-10) =$$

$$= -14 + 10 =$$

$$= \underline{\underline{-4}}$$

$$\text{D: } 1 + \frac{(-20)}{4} =$$

$$= 1 + (-5) =$$

$$= \underline{\underline{-4}}$$

$$L=D, \quad R = \{-20\}$$

ZN 1 str. 103 / 24. b)

$$\frac{3x+5}{6} + \frac{x-1}{4} = 0 \quad | \cdot 12$$

$$\frac{\cancel{12} \cdot (3x+5) \cdot \cancel{2}}{\cancel{6} \cdot 1} + \frac{\cancel{12} \cdot (x-1) \cdot \cancel{3}}{\cancel{4} \cdot 1} = 0 \cdot 12 \quad \left(\begin{array}{l} \text{TE VRSTICE NI} \\ \text{TREBA ZAPISATI} \end{array} \right)$$

$$2(3x+5) + 3(x-1) = 0$$

$$6x+10 + 3x-3 = 0$$

$$6x+3x = 0-10+3$$

$$9x = -7 \quad | :9$$

$$x = -\frac{7}{9}$$

$$\text{Pr. L: } \frac{3 \cdot \left(-\frac{7}{9}\right) + 5}{6} + \frac{\left(-\frac{7}{9}\right) - 1}{4} =$$

$$= \frac{-\frac{3 \cdot 7 \cdot 1}{1 \cdot 3 \cdot 3} + 5}{6} + \frac{-\frac{16}{9}}{4} =$$

$$= \frac{-\frac{7}{3} + \frac{15}{3}}{6} + \left(-\frac{16 \cdot 1 \cdot 4}{9 \cdot 4 \cdot 1} \right) =$$

$$= \frac{\frac{8 \cdot 1 \cdot 4}{3 \cdot 6 \cdot 3} - \frac{4}{9}}{6} = \frac{4}{9} - \frac{4}{9} = \underline{\underline{0}}$$

$$\text{D: } \underline{\underline{0}}$$

$$L=D$$

$$R = \left\{ -\frac{7}{9} \right\}$$

ZN1 str. 103/ 24. č

$$\frac{x+1}{3} - \frac{x+4}{2} = \frac{10-x}{4} - 2x \quad | \cdot 12$$

$$4(x+1) - 6(x+4) = 3(10-x) - 24x$$

$$4x+4 - 6x-24 = 30 - 3x - 24x$$

$$4x - 6x + 3x + 24x = 30 - 4 + 24$$

$$25x = 50 \quad | :25$$

$$\underline{\underline{x = 2}}$$

$$\text{Pr. L: } \frac{2+1}{3} - \frac{2+4}{2} =$$

$$= \frac{3}{3} - \frac{6}{2} =$$

$$= 1 - 3 =$$

$$= \underline{\underline{-2}}$$

$$\text{D: } \frac{10-2}{4} - 2 \cdot 2 =$$

$$= \frac{8}{4} - 4 =$$

$$= 2 - 4 =$$

$$= \underline{\underline{-2}}$$

$$L = D, \quad R = \{2\}$$