

Rovnice (2018 – 2020)

1. Řešte rovnici:

(a) $3,2 - 0,5x - 1 = 0,6 - 1,3x$

$$2,2 - 0,5x = 0,6 - 1,3x$$

$$0,8x = -1,6$$

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

(b) $\frac{5y+3}{8} - \frac{y}{2} = \frac{4-y}{5} + \frac{2y-1}{10} \quad / \cdot 40$

$$25y + 15 - 20y = 32 - 8y + 8y - 4$$

$$5y + 15 = 28$$

$$5y = 13$$

$$\underline{\underline{y = \frac{13}{5}}}$$

2. Řešte rovnici:

(a) $2,5 \cdot (2x - 0,4) + x = 2,5x + 0,4$

$$5x - 1 + x = 2,5x + 0,4$$

$$3,5x = 1,4$$

$$\underline{\underline{x = \frac{1,4}{3,5} = \frac{2}{5} = 0,4}}$$

(b) $y - \frac{2-5y}{10} = \frac{5y-8}{15} - 2 \quad / \cdot 30$

$$30y - 6 + 15y = 10y - 16 - 60$$

$$45y - 6 = 10y - 76$$

$$35y = -70$$

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

3. Řešte rovnici:

(a) $0,6x - \frac{1}{2} = 1,4x + 1,5$

$$0,6x - 0,5 = 1,4x + 1,5$$

$$-0,8x = 2$$

$$\underline{\underline{x = -2,5 \left(-\frac{5}{2}\right)}}$$

$$2 : 0,8 = \frac{20 : 8}{40} = 2,5$$

$$(b) \frac{3-2y}{3} = \frac{1-2y}{4} + \frac{y+3}{6} \quad / \cdot 12$$

$$12-8y = 3-6y + 2y + 6$$

$$12-8y = -4y + 9$$

$$-4y = -3$$

$$y = \frac{3}{4}$$

4. Řešte rovnici:

$$(a) 2 \cdot (3 - 0,75x) + x = 7 - \frac{x}{2}$$

$$6 - 1,5x + x = 7 - 0,5x$$

$$6 - 0,5x = 7 - 0,5x$$

$$0x \neq 1$$

nema řešení

$$(b) \frac{5}{6} \cdot (y-2) - \frac{2}{3} \cdot y = \frac{y}{2} - \frac{5}{4} \quad / \cdot 12$$

$$10 \cdot (y-2) - 8y = 6y - 15$$

$$10y - 20 - 8y = 6y - 15$$

$$2y - 20 = 6y - 15$$

$$-4y = 5$$

$$y = -\frac{5}{4}$$

5. Řešte rovnici:

$$(a) 2 \cdot \frac{5x}{6} - \frac{1}{3} = x - \frac{1}{2} \quad / \cdot 6$$

$$10x - 2 = 6x - 3$$

$$4x = -1$$

$$x = -\frac{1}{4}$$

$$(b) y - \frac{1-3y}{2} = \frac{7}{4} + \frac{5y}{3} \quad / \cdot 12$$

$$12y - 6 + 18y = 21 + 20y$$

$$30y - 6 = 21 + 20y$$

$$10y = 27$$

$$y = 2,7$$