

1) Řeš rovnice a proved' zkoušky:

$$a) \frac{7x}{5} = 7$$

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

$$c) \frac{3}{8} + 4y = \frac{2}{5}y$$

$$d) \frac{2}{3}d - \frac{3}{4} = \frac{1}{4} + \frac{1}{3}d$$

$$e) \frac{7}{9} - \frac{4}{5}p = \frac{4}{9} - \frac{3}{5}p$$

$$f) \frac{3}{5}q - \frac{1}{9}q = \frac{4}{5}q - \frac{2}{3}$$

2) Řeš rovnice a proved' zkoušky:

$$a) \frac{x}{4} - 2 = -5$$

$$b) \frac{y}{5} + 3 = -7$$

$$c) z - 3 = \frac{z}{2} + 1$$

$$d) \frac{u}{2} - \frac{u}{3} + \frac{u}{4} = 15$$

$$e) \frac{y}{2} - \frac{y}{4} = \frac{3}{2}$$

$$f) \frac{2a}{9} - \frac{a}{6} = \frac{a}{3} - \frac{5}{3}$$

Řešení:

1)

a) $x = 5, L = P = 7$

b) $y = -\frac{4}{3}, L = P = -\frac{16}{3}$

c) $y = -\frac{5}{48}, L = P = -\frac{1}{24}$

d) $d = 3, L = P = \frac{5}{4}$

2)

a) $\frac{x}{4} - 2 = -5 \quad / \cdot 4$

$$x - 8 = -20$$

$$x = -20 + 8$$

$$x = -12$$

$$L = \frac{-12}{4} - 2 = -3 - 2 = -5$$

$$P = -5$$

$$L = P$$

b) $\frac{y}{5} + 3 = -7 \quad / \cdot 5$

$$y + 15 = -35$$

$$y = -35 - 15$$

$$y = -50$$

$$L = \frac{-50}{5} + 3 = -10 + 3 = -7$$

$$P = -7$$

$$L = P$$

c) $z - 3 = \frac{z}{2} + 1 \quad / \cdot 2$

$$2z - 6 = z + 2$$

$$z = 8$$

$$L = 8 - 3 = 5$$

$$P = \frac{8}{2} + 1 = 4 + 1 = 5$$

$$L = P$$

d) $\frac{u}{2} - \frac{u}{3} + \frac{u}{4} = 15 \quad / \cdot 12$

$$6u - 4u + 3u = 180$$

$$5u = 180 \quad / : 5$$

$$u = 36$$

$$L = \frac{36}{2} - \frac{36}{3} + \frac{36}{4} = 18 - 12 + 9 = 15$$

$$P = 15$$

$$L = P$$

e) $\frac{y}{2} - \frac{y}{4} = \frac{3}{2} \quad / \cdot 4$

$$2y - y = 6$$

$$y = 6$$

$$L = \frac{6}{2} - \frac{6}{4} = \frac{12 - 6}{4} = \frac{6}{4} = \frac{3}{2}$$

$$P = \frac{3}{2}$$

$$L = P$$

f) $\frac{2a}{9} - \frac{a}{6} = \frac{a}{3} - \frac{5}{3} \quad / \cdot 18$

$$4a - 3a = 6a - 30$$

$$a - 6a = -30$$

$$-5a = -30 \quad / : (-5)$$

$$a = 6$$

$$L = \frac{2 \cdot 6}{9} - \frac{6}{6} = \frac{12}{9} - \frac{6}{6} = \frac{24 - 18}{18} = \frac{6}{18} = \frac{1}{3}$$

$$P = \frac{6}{3} - \frac{5}{3} = \frac{1}{3}$$

$$L = P$$