

Lineární rovnice $\Rightarrow$ zlomky

$$\frac{3x}{2} = 6 \quad / \cdot 2 \quad \text{— zbavit zlomku}$$
$$3x = 12 \quad / : 3 \quad \rightarrow \text{celá rovnice s vynásobí}$$
$$x = 4 \quad \text{společným jmenovatelem (násobek)}$$

$$7 + \frac{x}{3} = 13 \quad / \cdot 3$$

$$3(7 + \frac{x}{3}) = 3 \cdot 13$$

$$21 + x = 39 \quad / - 21$$

$$\underline{\underline{x = 18}}$$

$$8 = \frac{z}{5} + 7 \quad / \cdot 5$$

$$40 = z + 35 \quad / -40; -z$$

$$-z = 35 - 40$$

$$-z = -5$$

$$\underline{\underline{z = 5}}$$

$$\frac{x}{5} - 3 = \frac{2x}{5} \quad | \cdot 5 \quad \text{vadi mi zlomek}$$

$$x - 15 = 2x \quad | -2x, +15 \quad \Rightarrow \text{VYNAŠOBIM CELOU PC}$$

$$-x = 15$$

$$\underline{\underline{x = -15}}$$

společným jmenovatelem
! každý člen!

$$2 - \frac{2y}{5} = \frac{3y}{5} \quad | \cdot 5$$

$$10 - 2y = 3y \quad | -10, -3y$$

$$-2y - 3y = -10$$

$$-5y = -10 \quad | :5$$

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

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

$$\overset{4:4}{3x} - \overset{4:2}{2x} = 4$$

$$\underline{\underline{x = 4}}$$

$$1 \cdot 8$$

$$6x - 4x = 8$$

$$2x = 8$$

$$\underline{\underline{x = 4}}$$


$$\frac{x}{2} - \frac{x}{3} + \frac{x}{4} = \frac{x}{6} + \frac{x}{8} + \frac{x}{12} + 2 \quad | \cdot 24$$

$$12x - 8x + 6x = 4x + 3x + 2x + 48$$

$$10x = 9x + 48 \quad | - 9x$$

$$\underline{\underline{x = 48}}$$

společný
násobek

$$\frac{3+x}{5} = 2 \quad | \cdot 5$$

$$3+x = 10 \quad | -3$$

$$\underline{\underline{x = 7}}$$

$$\frac{(x-2)}{3} = \frac{(x+4)}{5} \quad / \cdot 15$$

$$5(x-2) = 3(x+4)$$

$$5x - 10 = 3x + 12 \quad / +10, -3x$$

$$5x - 3x = 12 + 10$$

$$2x = 22$$

$$\underline{\underline{x = 11}}$$

$$\frac{(x-6)}{5} - \frac{(x-4)}{7} = 0 \quad / \cdot 35$$

$$7(x-6) - 5(x-4) = 0$$

$$7x - 42 - 5x + 20 = 0$$

$$2x - 22 = 0 \quad / + 22$$

$$2x = 22$$

$$\underline{\underline{x = 11}}$$

$$\frac{x-6}{5} - \frac{x-4}{7} = 0$$

$$\frac{x-6}{5} = \frac{x-4}{7}$$

$$7x - 42 = 5x - 20$$

$$2x = 22$$

$$\underline{\underline{x = 11}}$$

$$\frac{x}{3} + \frac{x}{6} = 15 \quad / \cdot 6$$

$$2x + x = 90 \quad / :3$$

$$\underline{\underline{x = 30}}$$

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

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

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

$$\underline{\underline{x = 36}}$$

$$\frac{x}{4} - 7 = \frac{3x}{4} \quad / \cdot 4$$

$$x - 28 = 3x \quad / +28$$

$$x = 3x + 28 \quad / -3x$$

$$-2x = 28 \quad / :2$$

$$\underline{\underline{x = -14}}$$

$$\frac{y}{6} - \frac{2y}{3} = 8 - \frac{3y}{4} \quad / \cdot 12$$

$$2y - 8y = 96 - 9y$$

$$-6y = 96 - 9y \quad / +9y$$

$$3y = 96 \quad / :3$$

$$\underline{\underline{y = 32}}$$