

Z.1. Rozwiąż równania:

a) $2x + 7 = 13$

$$\begin{array}{cc} \downarrow -7 & \downarrow -7 \\ \dots\dots\dots & \dots\dots\dots \end{array}$$

$$\begin{array}{cc} \downarrow :2 & \downarrow :2 \\ \dots\dots\dots & \dots\dots\dots \end{array}$$

b) $5x + 5 = 2x + 17$

$$\begin{array}{cc} \downarrow -2x & \downarrow -2x \\ \dots\dots\dots & \dots\dots\dots \end{array}$$

$$\begin{array}{cc} \downarrow -5 & \downarrow -5 \\ \dots\dots\dots & \dots\dots\dots \end{array}$$

$$\begin{array}{cc} \downarrow :3 & \downarrow :3 \\ \dots\dots\dots & \dots\dots\dots \end{array}$$

c) $7x + 4 = 3x + 20$

$$\begin{array}{cc} \downarrow -3x & \downarrow -3x \\ \dots\dots\dots & \dots\dots\dots \end{array}$$

$$\begin{array}{cc} \downarrow & \downarrow \\ \dots\dots\dots & \dots\dots\dots \end{array}$$

$$\begin{array}{cc} \downarrow & \downarrow \\ \dots\dots\dots & \dots\dots\dots \end{array}$$

d) $9x + 10 = 4x + 25$

$$\begin{array}{c} \dots\dots\dots \\ \dots\dots\dots \\ \dots\dots\dots \\ \dots\dots\dots \end{array}$$
Z.2. Rozwiąż równania:

a) $2x - 5 = 17$

$$\begin{array}{cc} \downarrow +5 & \downarrow +5 \\ \dots\dots\dots & \dots\dots\dots \end{array}$$

$$\begin{array}{cc} \downarrow :2 & \downarrow :2 \\ \dots\dots\dots & \dots\dots\dots \end{array}$$

b) $4x - 9 = x + 12$

$$\begin{array}{cc} \downarrow +9 & \downarrow \\ \dots\dots\dots & \dots\dots\dots \end{array}$$

$$\begin{array}{cc} \downarrow & \downarrow \\ \dots\dots\dots & \dots\dots\dots \end{array}$$

$$\begin{array}{cc} \downarrow & \downarrow \\ \dots\dots\dots & \dots\dots\dots \end{array}$$

c) $5x - 12 = 3x + 4$

$$\begin{array}{cc} \downarrow -3x & \downarrow \\ \dots\dots\dots & \dots\dots\dots \end{array}$$

$$\begin{array}{cc} \downarrow & \downarrow \\ \dots\dots\dots & \dots\dots\dots \end{array}$$

$$\begin{array}{cc} \downarrow & \downarrow \\ \dots\dots\dots & \dots\dots\dots \end{array}$$

d) $6x - 18 = 2x + 2$

$$\begin{array}{c} \dots\dots\dots \\ \dots\dots\dots \\ \dots\dots\dots \\ \dots\dots\dots \end{array}$$
Z.3. Rozwiąż równania:

a) $11x + 10 = 2x + 37 \quad | -2x$

$$\begin{array}{c} \dots\dots\dots | -10 \\ \dots\dots\dots | :9 \\ \dots\dots\dots \end{array}$$

b) $12x + 6 = 9x + 12 \quad | -9x$

$$\begin{array}{c} \dots\dots\dots | -6 \\ \dots\dots\dots | \\ \dots\dots\dots \end{array}$$

c) $10x + 16 = 3x + 2 \quad | -16$

$$\begin{array}{c} \dots\dots\dots | \\ \dots\dots\dots | \\ \dots\dots\dots \end{array}$$

d) $5x - 12 = 4 + 4x \quad | +12$

$$\begin{array}{c} \dots\dots\dots | \\ \dots\dots\dots | \\ \dots\dots\dots \end{array}$$

e) $9x - 8 = 3x + 2$

$$\begin{array}{c} \dots\dots\dots | \\ \dots\dots\dots | \\ \dots\dots\dots \end{array}$$

f) $2x - 2 = -12x + 8$

$$\begin{array}{c} \dots\dots\dots | \\ \dots\dots\dots | \end{array}$$
Z.4. Rozwiąż i sprawdź

równania:

a) $4x + 2 = 8 \quad | -2$

$4x = 6 \quad | :4$

$x = 1,5$

sprawdzenie:

$L = 4 \cdot 1,5 + 2 = 6 + 2 = 8$

$P = 8$

$L = P$

b) $7x - 4 = x + 2$

 $\dots\dots\dots$ $\dots\dots\dots$ $\dots\dots\dots$

sprawdzenie:

$L = \dots\dots\dots$

$P = \dots\dots\dots$

$L \dots P$

c) $-5x + 4 = x - 8$

 $\dots\dots\dots$ $\dots\dots\dots$ $\dots\dots\dots$

sprawdzenie:

 $\dots\dots\dots$ $\dots\dots\dots$

Z.5. Rozwiąż i sprawdź

równania:

a) $2(5x - 1) = 8$

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sprawdzenie:

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

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sprawdzenie:

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c) $-3 \cdot (x - 2) = -9$

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sprawdzenie:

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d) $2x - 6 = 3(x + 1)$

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sprawdzenie:

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e) $\frac{1}{3}(y - 1) = 5y$

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sprawdzenie:

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f) $\frac{6x + 8}{2} = 4$

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sprawdzenie:

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g) $2(x + 7) = 3(2x - 5)$

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sprawdzenie:

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h) $3(x - 5) + 7 = x + 1$

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sprawdzenie:

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i) $2(3x - 5) = 7x - (2 + x)$

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j) $x - 4(3 - 5x) = 3(-4 + 7x)$

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k) $(x + 1) - (x - 1) = 1$

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l) $x = 1 - 3(x + 1)$

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ł) $-(x - 1) = 2$

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Z. 6.

a) $x - 6 = -11$

b) $4 \cdot x = 28$

c) $44 + x = 26$

d) $\frac{x}{6} = -21$

e) $3x - 6 = 9$

f) $x : 4 - 3 = 10$

g) $x + 7 - 12 = 5$

h) $x \cdot 6 - 3 = 15$

i) $(x - 4) \cdot 5 - 3 = 22$

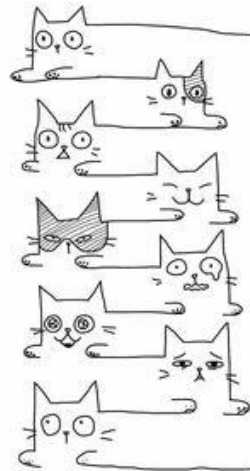
j) $(5x - 2) : 3 = 11$

k) $2x - 6 = 4 + 3x$

l) $-3(2 - 3x) + 1 = 2x + 3$

ł) $\frac{2x-3}{3} + 5 = 2(x + 2)$

m*) $[12 \cdot (\frac{x}{2} - 3) : 6 + 1] \cdot 3 - 2 = 13$



Przyjemnego rozwiązywania
równań ☺

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