Lineární rovnice 3

1. $3x - 1 = 2 \cdot (x+5)$

$3x - 1 = 2x + 10$

$3x - 2x = 10 + 1$

$x = 11$

zk.: $L = 3x - 1$ $\quad P = 2 \cdot (x+5)$

$L = 3 \cdot 11 - 1$ $\quad P = 2 \cdot (11+5)$

$L = 33 - 1$ $\quad P = 2 \cdot 16$

$L = 32$ $\quad P = 32$

$L = P$

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2. $\frac{3b}{8} + 1 = \frac{2b}{4} \quad / \cdot 8$

$3b + 8 = 4b$

$8 = 4b - 3b$

$8 = b$

zk.: $L = \frac{3b}{8} + 1$ $\quad P = \frac{2b}{4}$

$L = \frac{24}{8} + 1$ $\quad P = \frac{2 \cdot 8}{4}$

$L = 3 + 1$ $\quad P = \frac{16}{4}$

$L = 4$ $\quad P = 4$

$L = P$

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3. $\frac{a+1}{5} + \frac{a-1}{4} = 4 \quad / \cdot 20$

$4 \cdot (a+1) + 5 \cdot (a-1) = 80$

$4a + 4 + 5a - 5 = 80$

$9a - 1 = 80$

$9a = 81$

$a = 9$

zk.: $L = \frac{a+1}{5} + \frac{a-1}{4}$

$L = \frac{9+1}{5} + \frac{9-1}{4}$

$L = \frac{10}{5} + \frac{8}{4}$

$L = 2 + 2 = 4$ $\quad P = 4$ $\quad L = P$

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4. $\frac{u+4}{3} - 3 = \frac{u-1}{2} \quad / \cdot 6$

$2 \cdot (u+4) - 18 = 3 \cdot (u-1)$

$2u + 8 - 18 = 3u - 3$

$2u - 10 = 3u - 3$

$-10 + 3 = 3u - 2u$

$-7 = u$

zk.: $L = \frac{u+4}{3} - 3$ $\quad P = \frac{u-1}{2}$

$L = \frac{-7+4}{3} - 3$ $\quad P = \frac{-7-1}{2}$

$L = \frac{-3}{3} - 3$ $\quad P = \frac{-8}{2}$

$L = -1 - 3$ $\quad P = -4$

$L = -4$

$L = P$