PL 5 M 8. A – lineární rovnice I. – řešení

Řešte rovnici, nezapomeňte na zkoušku:

a) $2x + 3 = -3x - 2$ $|+3x-3$

$5x = -5$ $|:5$

$x = -1$

$L(-1) = 2(-1)+3 = -2+3 = 1$

$P(-1) = -3\cdot(-1)-2 = 3-2 = 1$

$L(-1) = P(-1)$

b) $0{,}4x + 0{,}5 = 0{,}1x - 0{,}4$ $|\cdot 10$

$4x+5 = x-4$ $|-x-5$

$3x = -9$ $|:3$

$x = -3$

$L(-3) = 0{,}4\cdot(-3)+0{,}5 = -1{,}2+0{,}5 = -0{,}7$

$P(-3) = 0{,}1\cdot(-3)-0{,}4 = -0{,}3-0{,}4 = -0{,}7$

$L(-3) = P(-3)$

c) $7.(z + 8) = 6.(7 + z)$

$7z+56 = 42+6z$ $|-6z-56$

$z = -14$

$L(-14) = 7(-14+8) = 7\cdot(-6) = -42$

$P(-14) = 6\cdot[7+(-14)] = 6\cdot(-7) = -42$

$L(-14) = P(-14)$

d) $11 + 4x = 7 - 4x$ $|+4x-11$

$8x = -4$ $|:8$

$x = -\frac{4}{8} = -\frac{1}{2}\ (= -0{,}5)$

$L(-\frac{1}{2}) = 11+4\cdot(-\frac{1}{2}) = 11-2 = 9$

$P(-\frac{1}{2}) = 7-4\cdot(-\frac{1}{2}) = 7+2 = 9$

$L(-\frac{1}{2}) = P(-\frac{1}{2})$

e) $6u + 34{,}8 = 34{,}8 + 5u$ $|\cdot 10$

$60u+348 = 348+50u$ $|-50u-348$

$10u = 0$ $|:10$

$u = 0$

$L(0) = 6\cdot 0+34{,}8 = 34{,}8$

$P(0) = 34{,}8+5\cdot 0 = 34{,}8$

$L(0) = P(0)$

f) $3.(y + 4) + 5 = 2.(2y - 1) + 16$

$3y+12+5 = 4y-2+16$

$3y+17 = 4y+14$ $|-3y-14$

$3 = y$

$L(3) = 3(3+4)+5 = 3\cdot 7+5 =$

$= 21+5 = 26$

$P(3) = 2(2\cdot 3-1)+16 = 2\cdot(6-1)+$

$+16 = 2\cdot 5+16 = 10+16 =$

$= 26$

$L(3) = P(3)$