A-4. Řešte rovnice a proveďte zkoušku.

a) $x + 7 = 10$

$x = 10 - 7$

$x = 3$

$L = 3 + 7 = 10$

$P = 10$

$L = P$

b) $y - 3 = 5$

$y = 5 + 3$

$y = 8$

$L = 8 - 3 = 5$

$P = 5$

$L = P$

c) $16 + s = 106$

$s = 106 - 16$

$s = 90$

$L = 16 + 90 = 106$

$P = 106$

$L = P$

d) $25 + x = 31$

$x = 31 - 25$

$x = 6$

$L = 25 + 6 = 31$

$P = 31$

$L = P$

e) $y - 32 = 18$

$y = 18 + 32$

$y = 50$

$L = 50 - 32 = 18$

$P = 18$

$L = P$

f) $n - 16 = 54$

$n = 54 + 16$

$n = 70$

$L = 70 - 16 = 54$

$P = 54$

$L = P$

g) $14z = 42$

$z = 42 : 14$

$z = 3$

$L = 14 \cdot 3 = 42$

$P = 42$

$L = P$

h) $9x = 72$

$x = 72 : 9$

$x = 8$

$L = 9 \cdot 8 = 72$

$P = 72$

$L = P$

i) $5x = 120$

$x = 120 : 5$

$x = 24$

$L = 5 \cdot 24 = 120$

$P = 120$

$L = P$

A-5. Řešte rovnice a proveďte zkoušku.

a) $2 + 2z = 12$

$2z = 12 - 2$

$2z = 10 \ / : 2$

$z = 5$

$L = 2 + 2 \cdot 5 = 2 + 10 = 12$

$P = 12$

$L = P$

b) $10 - 10x = 120$

$-10x = 120 - 10$

$-10x = 110 \ / : (-10)$

$x = -11$

$L = 10 - 10 \cdot (-11) = 10 + 110 = 120$

$P = 120$

$L = P$

c) $10 + 2x = x + 45$

$2x - x = 45 - 10$

$x = 35$

$L = 10 + 2 \cdot 35 = 80$

$P = 35 + 45 = 80$

$L = P$

d) $x + 28 = 12 + 2x$

$x - 2x = 12 - 28$

$-x = -16$

$x = 16$

$L = 16 + 28 = 44$

$P = 12 + 2 \cdot 16 = 12 + 32 = 44$

$L = P$

e) $3z - 8 = z + 6$

$3z - z = 6 + 8$

$2z = 14 \ / : 2$

$z = 7$

$L = 3 \cdot 7 - 8 = 13$

$P = 7 + 6 = 13$

$L = P$

f) $16 + 7s = 4s + 22$

$7s - 4s = 22 - 16$

$3s = 6 \ / : 3$

$s = 2$

$L = 16 + 7 \cdot 2 = 16 + 14 = 30$

$P = 4 \cdot 2 + 22 = 30$

$L = P$

g) $2x - 8 = 42$

$2x = 42 + 8$

$2x = 50 \ / : 2$

$x = 25$

$L = 2 \cdot 25 - 8 = 50 - 8 = 42$

$P = 42$

$L = P$

h) $2y - 14 = y + 3$

$2y - y = 14 + 3$

$y = 17$

$L = 2 \cdot 17 - 14 = 34 - 14 = 20$

$P = 17 + 3 = 20$

$L = P$

i) $5y - 12 = 9 + 2y$

$5y - 2y = 9 + 12$

$3y = 21$

$y = 7$

$L = 5 \cdot 7 - 12 = 35 - 12 = 23$

$P = 9 + 2 \cdot 7 = 9 + 14 = 23$

$L = P$

A-6. Řešte rovnice a proveďte zkoušku.

a) $26 - y = 4y + 11$

$-y - 4y = 11 - 26$

$-5y = -15 \ / : (-5)$

$y = 3$

$L = 26 - 3 = 23$

$P = 4 \cdot 3 + 11 = 12 + 11 = 23$

$L = P$

b) $3a - 5 = a + 4$

$3a - a = 4 + 5$

$2a = 9 \ / : 2$

$a = 4{,}5$

$L = 3 \cdot 4{,}5 - 5 = 13{,}5 - 5 = 8{,}5$

$P = 4{,}5 + 4 = 8{,}5$

$L = P$

c) $4x - 5 = 2x - 1$

$4x - 2x = -1 + 5$

$2x = 4 \ / : 2$

$x = 2$

$L = 4 \cdot 2 - 5 = 3$

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

$L = P$

d) $u - (-2) = 0$

$u + 2 = 0$

$u = -2$

$L = -2 - (-2) = -2 + 2 = 0$

$P = 0$

$L = P$

e) $4s + (-3) = 3s - (-1)$

$4s - 3 = 3s + 1$

$4s - 3s = 1 + 3$

$s = 4$

$L = 4 \cdot 4 - 3 = 16 - 3 = 13$

$P = 3 \cdot 4 + 1 = 13$

$L = P$

f) $2x - (-9) = -7$

$2x + 9 = -7$

$2x = -7 - 9$

$2x = -16 \ / : 2$

$x = -8$

$L = 2 \cdot (-8) - (-9) = -16 + 9 = -7$

$P = -7$

$L = P$

g) $3 \cdot (y - 5) + 8 = 17$

$3y - 15 + 8 = 17$

$3y - 7 = 17$

$3y = 24 \ / : 3$

$y = 8$

$L = 3 \cdot (8 - 5) + 8 = 9 + 8 = 17$

$P = 17$

$L = P$

h) $15 \cdot (x + 2) = 6 \cdot (2x + 7)$

$15x + 30 = 12x + 42$

$15x - 12x = 42 - 30$

$3x = 12 \ / : 3$

$x = 4$

$L = 15 \cdot (4 + 2) = 90$

$P = 6 \cdot (2 \cdot 4 + 7) = 6 \cdot 15 = 90$

$L = P$