II. B – DOMÁCÍ

34 – 31 … 1
– 24 … 2
– 14 … 3
– 7 … 4
– 0 … 5

1) $(3+6)^2 = 9^2 = 81$ 2

$\sqrt{\frac{80}{4 \cdot 5}} = \sqrt{4} = 2$ 2 (5)

2) $78\,965 \doteq 7{,}8 \cdot 10^4\ km^2$ 2 (2)

3)
a) $5 \cdot 9^2 - 4 \cdot 3^3 = 5 \cdot 81 - 4 \cdot 27 = 405 - 108 = \underline{297}$ 2
b) $(8-6)^3 - (2-9)^2 = 2^3 - (-7)^2 = 8 - 49 = \underline{-41}$ 2 (5)

4) a) $-9u + 6 + 7u - 1 = \underline{-2u + 5}$ 1

b) $(-4y - 2) - (13 + y) = -4y - 2 - 13 - y = \underline{-5y - 15}$ 2 (3)

5) a) $-7ab \cdot (-a + 6b) = +7a^2b - 42ab^2$ 2

b) $3 \cdot (4x + 1) - (3 + x) \cdot (2 - 5x) =$ 4 (6)

$= 12x + 3 - [6 - 15x + 2x - 5x^2] = 12x + 3 - 6 + 15x - 2x + 5x^2 =$

$= \underline{5x^2 + 25x - 3}$

6) a) $7 - 7v^2 = 7 \cdot (1 - v^2) = 7 \cdot (1 - v) \cdot (1 + v)$ 2

b) $a^2 - 14a + 49 = (a - 7)^2$ 1 (3)

7) $(5x + 12y)^2 = 25x^2 + 120xy + 144y^2$ 2

$(13ab - 6c) \cdot (13ab + 6c) = 169a^2b^2 - 36c^2$ 2 (4)

8) $d = 250\ cm \rightarrow r = 125\ cm = 1{,}25\ m$

$h = 0{,}7\ m$

$V = ?\ hl$ (4)

$V = \pi r^2 v = 3{,}14 \cdot 1{,}25^2 \cdot 0{,}7 \doteq 3{,}434\ m^3 = 34{,}34\ hl$ + odpověď

9)

$r = 5\ cm = 0{,}5\ dm$

$v = 17\ cm = 1{,}7\ dm$

12 $S = ?\ dm^2$

$S = 2\pi r(r + v)$ (4)

$= 2 \cdot 3{,}14 \cdot 0{,}5(0{,}5 + 1{,}7)$ + odpověď

$= 6{,}908$ $(\cdot 12 = 82{,}896\ dm^2)$