/17

BODOVNI PRAG

17 - 15 ⇒ 5

14 - 12 ⇒ 4

11 - 9 ⇒ 3

8 - 7 ⇒ 2

3.1

(3.)

1) $2a(3a-5b)+2b(2a-3b)-6a(a-b)$ (+1)

$= 6a^2-10ab+4ab-6b^2-6a^2+6ab = -6b^2$

3.2 **(1.)**

1) $(3a+2b)^2 = 9a^2+2\cdot 3a\cdot 2b+4b^2$

$= 9a^2+6a\cdot 2b+4b^2$ (+1)

$= 9a^2+12ab+4b^2$

(23)

4) $a^2+3a+\dfrac{a}{4} = \left(a+\dfrac{3}{2}\right)^2$ (+1)

(36.)

4) $(x^2-4)^2-(x+2)(x-2)(x^2+4)$

$= (x^4-2)x^2\cdot(+4)+4^2$

$x4 -2x^2\cdot(+4)+4^2$ (+2)

$x4 -8x^2+16-(x4-16)$

$x^4-8x^2+16-x^4+16 = -8x^2+32$

6) $(2a+3b)^2-(3a-2b)^2 = (2a)^2+2\cdot 2a\cdot 3b^{+3b^2}-(3a)^2-(2\cdot 3a-2b)+2b^2$

$= 4a^2+12ab+3b^2-9a^2+12ab+2b^2$ (+2)

$= -5a^2+5b^2+24ab$

3.3

1) $(2a-3)(2a+3) = 2a^2-3^2 = 2a^2-3^2 = 4a^2-9$ (+1)

2) $(4a+5)(4a-5) = 4a^2-5^2 = 16a^2-25$ (+1)

3) $81a^4-16 = (9a^2-4)(9a^2+4)$ (+1)

$= (3a-2)(3a+2)\cdot(9a^2+4)$

11.

1) $(a-b)^2 - c^2 = (a-b-c)(a-b+c)$ (+1)

19.

1) $27a^3 + 8b^3 = (27a^3 + 8b^3)$ (+1)

$\quad = (3a+2b)(3a^2 + 3a2b + 2b^2)$

3.4

2.

1) $6a^2b^2 - 12a^3b + 18ab^2 = 6ab(ab - 2a + 3b)$ (+0.5)

2) $7a^3b + 14a^2b^2 - 21a^2b = 7a^2b(a^2 + 2b - 3)$ (+0.5)

7.

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

$\qquad\qquad\qquad (2a-1)(5a+5)$

$\qquad\qquad\qquad 5(a+1)(2a-1)$

10.

1.) $3a^2 + 2a + 4b + 6ab = 3a(a+2b) + 2(a+2b)$ (+1)

$\qquad\qquad\qquad (a+2b) + (3a+2)$

3.5

1) $\dfrac{a^2-4}{a^2-2a} = \dfrac{(a-2)(a+2)}{a(a-2)} = \dfrac{a+2}{a}$ (+1)

2) $\dfrac{a^2-b^2}{a^3-b^3} = \dfrac{(a-b)(a+b)}{(a+b)(a^2+ab+b^2)} = \dfrac{a+b}{a^2+ab+b^2}$ (+1)