

# POLINOMIAL

No. \_\_\_\_\_

Date: \_\_\_\_\_

$$1) x_1 \cdot x_2 \cdot x_3 = \frac{-d}{a} = \frac{-(-6)}{3} = 2$$

$$5) P = l + 3$$

$$t = l - 2$$

$$V = 56 \text{ m}^3$$

$$2) P(-3) = 2 ; 9A - 3B + C = 29$$

$$P(-1) = 0 ; A - B + C = 1$$

$$P(1) = 0 ; A + B + C = -1$$

$$P \cdot l \cdot t = 56$$

$$(l + 3) \cdot l \cdot (l - 2) = 56$$

$$l(l^2 + l - 6) = 56$$

$$l^3 + l^2 - 6l - 56 = 0 \quad (b)$$

Eliminasi

$$A - B + C = 1 \quad 9A + C = 26$$

$$A + B + C = -1 \quad A + C = 0 \quad (6)$$

$$-2B = 2$$

$$B = -1$$

$$8A = 26$$

$$A = \frac{26}{8}$$

$$C = -\frac{26}{8}$$

$$\begin{array}{ccc|c} 1 & -5 & -8 & 12 \\ * & -2 & 14 & -12 \\ \hline 1 & -7 & 6 & 0 \end{array}$$

$$x^2 - 7x + 6 = 0$$

$$(x - 1)(x - 6) = 0 \quad (a)$$

$$A + 2B - 3C = \frac{26}{8} + 2(-1) - 3\left(-\frac{26}{8}\right)$$

$$= 11 \quad (c)$$

$$7) \begin{array}{ccc|c} 1 & 3 & -7 & 2 \\ * & -4 & 4 & 12 \\ \hline 1 & -1 & -3 & 14 \end{array}$$

$$H(x) = x^2 - x - 3$$

$$S = 14 \quad (e)$$

$$3) \begin{array}{ccc|c} 9 & 0 & -7 & 2 \\ * & -3 & 1 & 2 \\ \hline 9 & -3 & -6 & 4 \end{array}$$

$$-\frac{1}{3} \cdot \begin{array}{ccc|c} 9 & 0 & -7 & 2 \\ * & -3 & 1 & 2 \\ \hline 9 & -3 & -6 & 4 \end{array}$$

$$9 - 3 - 6 \quad 4$$

$$S = 4$$

$$H(x) = \frac{1}{3}(9x^2 - 3x - 6)$$

$$= 3x^2 - x - 2 \quad (d)$$

$$4) f(3) = 17$$

$$3(3)^2 - 4(3) + b = 17$$

$$27 - 12 + b = 17$$

$$b = 2 \quad (a)$$

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SCAN ME



$$8) \begin{array}{r} 9 \quad -12 \quad 13 \quad -8 \quad a \\ * \quad 2 \quad -5 \quad 4 \quad -2 \\ \hline 4 \quad -10 \quad 8 \quad -4 \quad a-2 \end{array}$$

$$a-2 = 0$$

$$a = 2$$

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

$$= 5$$

$$9) f(x) \cdot g(x) = (x^2 + 1)(2x - 5)$$

$$= x^2(2x - 5) + 1(2x - 5)$$

$$= 2x^3 - 5x^2 + 2x - 5$$

$$12) f(-5) = 4$$

$$g(-5) = 5$$

$$h(x) = f(x) \cdot g(x)$$

$$h(-5) = f(-5) \cdot g(-5)$$

$$= 4 \cdot 5$$

$$= 20$$

$$13) \begin{array}{r} 2 \quad 1 \quad p \quad 3 \\ -1 \quad * \quad -2 \quad 1 \quad -p-1 \\ \hline 2 \quad -1 \quad p+1 \quad -p+2 \end{array}$$

$$-p+2 = 3$$

$$-p = 1$$

$$p = -1$$

$$10) \begin{array}{r} 1 \quad 3 \quad 0 \quad k \quad -1 \\ * \quad -2 \quad -2 \quad 4 \quad -2k-8 \\ \hline 1 \quad 1 \quad -2 \quad k+4 \quad -2k-9 \end{array}$$

$$-2k - 9 = -11$$

$$-2k = -2$$

$$k = 1$$

$$2 \begin{array}{r} 2 \quad 1 \quad -1 \quad 3 \\ * \quad 4 \quad 10 \quad 18 \\ \hline 2 \quad 5 \quad 9 \quad 21 \end{array} \quad S = 21 //$$

$$14) (x^2 + 3x - 10) = (x + 5)(x - 2)$$

$$\text{misal } S(x) = ax + b$$

$$S(-5) = -4 \quad S(2) = 10$$

$$-5a + b = -4 \quad 2a + b = 10$$

$$-5a + b = -4 \quad 2a + b = 10$$

$$2a + b = 10 \quad - \quad 4 + b = 10$$

$$-7a = -14 \quad b = 6$$

$$a = 2 \quad S(x) = 2x + 6 \quad (a) //$$

$$11) h(x) = f(x) + g(x)$$

$$h(0) = f(0) + g(0)$$

$$= 5 + (-2)$$

$$= 3$$

15)  $x_1; x_2; x_3$

$x_1 = -x_2$

$x_1 \cdot x_2 \cdot x_3 = -k$

$-x_2^2 \cdot x_3 = -k$

$x_2^2 \cdot x_3 = k$

$x_1 + x_2 + x_3 = -3$

$x_3 = -3$

$x_1 x_2 + x_1 x_3 + x_2 x_3 = -7$

$-x_2^2 + (-x_2) \cdot (-3) + x_2 \cdot (-3) = -7$

$-x_2^2 + 3x_2 - 3x_2 = -7$

$-x_2^2 = -7$

$x_2^2 = 7$

$k = x_2^2 \cdot x_3$

$= 7 \cdot (-3) = -21$  (d)

16) 
$$\begin{array}{c|cccc} 2 & 2 & 1 & -3 & 5 \\ & x & 4 & 10 & 14 \\ \hline & 2 & 5 & 7 & 19 \end{array}$$

$f(x) = 2x^2 + 5x + 7$

$S = 19$  (e)

17)  $f(2) = 9$

$2(2)^2 - 5(2) + a = 9$

$8 - 10 + a = 9$

$a = 11$  (b)

18)  $(x^2 - x - 6) = (x+2)(x-3)$

misal sisa  $S(x) = ax + b$

$S(3) = 8$        $S(-2) = -7$

$3a + b = 8$        $-2a + b = -7$

$3a + b = 8$

$3a + b = 8$

$-2a + b = -7$

$9 + b = 8$

$5a = 15$

$b = -1$

$a = 3$

$S(x) = 3x - 1$  (d)

19) 
$$\begin{array}{c|cccc} 3 & -2 & p & 7 \\ 1 & x & 3 & 1 & p+1 \\ \hline & 3 & 1 & p+1 & p+8 \end{array}$$

$p+8 = 7$

$p = -1$

$$\begin{array}{c|cccc} 3 & -2 & -1 & 7 \\ -2 & x & -6 & 16 & -30 \\ \hline & 3 & -8 & 15 & -23 \end{array}$$
 (e)

20)  $x_1 = -x_2$

$x_1 + x_2 + x_3 = 5$

$x_3 = 5$

$x_1 x_2 + x_1 x_3 + x_2 x_3 = -4$

$-x_2^2 - x_2 x_3 + x_2 x_3 = -4$

$-x_2^2 = -4$

$x_2^2 = 4$

$x_1 x_2 x_3 = -k$

$-x_2^2 \cdot 5 = -k$

$-4 \cdot 5 = -k$

$k = 20$  (d)

$$21) f(x) \cdot g(x) = (3x-2)(x^2+1)$$

$$= 3x^3 - 2x^2 + 3x - 2 \quad (a)$$

$$24) \begin{array}{r|rrrr} & 1 & 4 & -7 & -10 \\ -5 & * & -5 & 5 & 10 \\ \hline & 1 & -1 & -2 & \boxed{0} \end{array}$$

$$22) (x^2+x-2) = (x-1)(x+2)$$

$$S(x) = ax+b$$

$$(x^2-4x+3) = (x-1)(x-3)$$

$$S(x) = 2bx+a-1$$

$$(x^2-x-2) = 0$$

$$(x+1)(x-2) = 0 \quad (e) //$$

$$f(1) = a+b$$

$$f(1) = a+2b-1$$

$$f(-2) = -2a+b$$

$$f(3) = a+6b-1$$

$$25) \begin{array}{r|rrrr} & 4 & 0 & -7 & 1 \\ -\frac{1}{2} & * & -2 & 1 & 3 \\ \hline & 4 & -2 & -6 & \boxed{4} \end{array}$$

$$a+b = a+2b-1$$

$$-b = -1$$

$$b = 1$$

$$H(x) = \frac{1}{2} (4x^2 - 2x - 6)$$

$$= 2x^2 - x - 3 \quad (e) //$$

$$-2a+b = 7$$

$$= a^2 + b^2$$

$$= 9 + 1$$

$$-2a = 6$$

$$= 10 \quad (c) //$$

$$a = -3$$

$$23) h(x) = f(x) - g(x)$$

$$h(0) = f(0) - g(0)$$

$$= 1 - (-4)$$

$$= 5 \quad (e) //$$

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