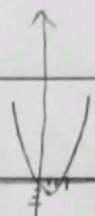


٢٥ (التحليل)

جواب

الف) $y = \frac{1}{2}x^2 - 2x$

ext $\left| \begin{array}{l} \frac{1}{2} \\ \frac{1}{2} \cdot \frac{1}{2} = \frac{1}{4} \end{array} \right.$



موجبة

(1)

ب) $y = -x^2 + 4x$

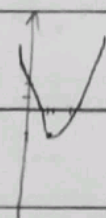
ext $\left| \begin{array}{l} -1 \\ -1 \cdot 2 = -2 \end{array} \right.$



سالبة

الف) $y = 2x^2 - 8x + 4$

ext $\left| \begin{array}{l} \frac{2}{2} = 1 \\ \frac{2 \cdot 1}{2} = 1 \\ \frac{16}{4} - \frac{8^2}{4} + 4 = -4 \end{array} \right.$

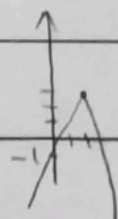


موجبة

١٤

ب) $y = -x^2 + 4x - 1$

ext $\left| \begin{array}{l} -1 \\ -1 \cdot 2 = -2 \\ -1 + 4 - 1 = 2 \end{array} \right.$



سالبة

الف) $\frac{a+b}{a-b} = \frac{1}{\sqrt{13}} \cdot \frac{\sqrt{13}}{13}$

S: 1 P: -13

١٥

ب) $a^2 + b^2 = 1^2 + 9 = 10$

ج) $a^3 + b^3 = 1^3 + 27 = 28$

د) $a^4 - b^4 = (a-b)(a^2 + b^2 + ab) = \sqrt{13}(10 - 3) = 7\sqrt{13}$

$$y = (x-1)(x^r - ax + a) \quad (1)$$

$$1) \Delta = a^r - 5a^r + a(a-5) = \frac{1}{5} - \frac{1}{5} + \frac{1}{5} = \frac{1}{5} < 0$$

$$2) (x-1)^r = x^r - 5x + 5 = x^r - ax + a \quad a=5 \quad / 0 \quad \cdot (a \neq 5)$$

$$10) \quad 10) \quad x^r - 11x - a = 0 \quad \gamma a^r + \beta^r \cdot \gamma a = 0$$

$$(x-1)^r + a^r + \beta^r = 11$$

$$a^r - 5a + 5 + 5a + 5\beta + \frac{1}{\beta} - 11 = 0 \quad \frac{1}{\beta} + \frac{1}{\beta} = \frac{1}{\beta} \quad \frac{a}{\beta} = \frac{-9}{10} \quad \left(\frac{-9}{10} \right)$$

$$a^r - 5a + 5 + 5\beta + \frac{1}{\beta} - 11 = 0$$

$$14 + \frac{1}{\beta} + \frac{a}{\beta} = 0 \Rightarrow 14 + 0 = 0 \quad a=9 \quad 10) \quad x^r - 11x + 9 = 0$$

$$(x-1)(x-9) = 0 \quad a=1 \quad \beta=9$$

$$\frac{-b}{2a} = \frac{11}{2} = 5.5 \quad \frac{1}{\beta} = 0 \quad a=9$$

S(0, 10)

$$a-r \geq 1 \quad a \geq 10 \quad \wedge \quad a \leq 10$$

$$10-r \geq 1 \quad r \leq 9 \quad a \leq 9$$

A(1, 1), (1, 1)

$$y = a(x-1)^r + 10 \quad 1 = a(9-1)^r + 10 \quad a = -\frac{1}{8}$$

$$y = -\frac{1}{8}x^r + \frac{1}{8}x - \frac{1}{8} \quad \left| -\frac{1}{8} \right| = \frac{1}{8}$$

1

$$\frac{a+1}{a} = \frac{1}{a} + \frac{1}{1} = \frac{1}{a} + 1 = \frac{1+a}{a} = \frac{1}{a} + 1$$

$$(a-1)^r = 1 - \frac{1}{a} \quad |a-1| = \frac{1}{a} \quad \left(\frac{1}{a} + \frac{1}{0} \right) \quad r = \frac{1}{a} \quad \text{arg} = \frac{1}{a}$$

$$\frac{b}{a} = \frac{1-a}{r} = -r \quad b = -ra \quad \left[C = \frac{r}{r} \right] \quad \frac{r}{ra} = \frac{1}{a} = -r \quad C = -1$$

$$y = ax^r + b = \frac{1}{r} x^{r+1} + \frac{1}{r}$$

$$\frac{1}{r} + r + \frac{1}{r} = 1$$

$$\boxed{b = r} \quad \boxed{a = \frac{1}{r}}$$

$$r \left(-r - \sqrt{9-a} \right)^r + r \left(-r + \sqrt{9-a} \right)^r =$$

$$r(9+9-a+4\sqrt{9-a}) + r(9+9-a-4\sqrt{9-a}) = 2r(18-a) = 18r - 2ra$$

$$x = \frac{-4 \pm \sqrt{16-4a}}{2} = -2 \pm \sqrt{4-a}$$

$$2a = 0 \quad (a=1)$$

$$\frac{1}{a} + \frac{1}{b} = \frac{a+b}{ab} = \frac{1}{a+b} \quad \frac{1}{a} + \frac{1}{b} = \frac{1}{a+b}$$

$$m \cdot x^r + \frac{1}{m} = \frac{1}{m} \quad \boxed{m=1}$$

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