

1 ①

2 الف) $y = x^2 - 4x + 4$

3 $\frac{4}{1} = 4 \Rightarrow 4 - 4 + 4 = 4$

4 ب) $y = -x^2 + 4x - 4$

5 $\frac{-4}{-1} = 4 \Rightarrow -4 + 4 - 4 = -4$

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7 ⑤ $2x^2 + (m+1)x + \frac{1}{2}m + 1 = 0$

8 الف) $\Delta > 0 \Rightarrow (m+1)^2 - 4(2)(\frac{1}{2}m+1) > 0$

9 $m^2 + 2m + 1 - 4m - 4 > 0 \Rightarrow m^2 - 2m - 3 > 0$

10 $(m+3)(m-1) > 0 \Rightarrow m \in (-\infty, -3) \cup (1, +\infty)$

11 ب) $\Delta = 0 \Rightarrow m^2 - 2m - 3 = 0 \Rightarrow m = -3, 1$

12 ج) $\Delta < 0 \Rightarrow m^2 - 2m - 3 < 0 \Rightarrow m \in (-3, 1)$

13 د) $\Delta \geq 0 \Rightarrow m^2 - 2m - 3 \geq 0 \Rightarrow m \in (-\infty, -3] \cup [1, +\infty)$

14 ⑥ $y = (m-2)x^2 - 2(m+1)x + 10$

15 الف) $P > 0 \Rightarrow \frac{10}{m-2} > 0 \Rightarrow \frac{2}{m-2} \Rightarrow m > 2$ ①

16 $S < 0 \Rightarrow \frac{2m+2}{m-2} < 0 \Rightarrow \frac{m+1}{m-2} < 0 \Rightarrow m \in (-1, 2)$ ②

17 $\Delta > 0 \Rightarrow (2m+2)^2 - 4(m-2)(10) > 0 \Rightarrow 4m^2 + 8m + 4 - 40m + 80 > 0$

18 $= 4m^2 - 32m + 84 > 0 \Rightarrow m^2 - 8m + 21 > 0 \Rightarrow \Delta < 0$

19 $\Rightarrow \Delta > 0 \Rightarrow \text{استمرار} = \emptyset$

1 ب) $S < 0 \Rightarrow \frac{2m+2}{m-2} < 0 \Rightarrow \frac{m+1}{m-2} < 0$ ①

2 $P < 0 \Rightarrow \frac{10}{m-2} < 0 \Rightarrow \frac{2}{m-2} < 0$ ②

3 $\Delta < 0 \Rightarrow m \in (-1, 2)$

4

(۴) $y = (m-2)x^2 - 2(m+1)x + 10$ است. $\oplus$ این معادله معادله درجه دوم است.

۱) $P \geq 0 \Rightarrow \frac{10}{m-2} \Rightarrow \frac{2}{-2+2} \Rightarrow m \leq 2$

۲) $\frac{2(m+1)}{2(m-2)} = \frac{m+1}{m-2} = -2 \Rightarrow m+1 = -2m+4 \Rightarrow 3m = 3 \Rightarrow \boxed{m=1}$

(۵) $y = \frac{r}{r} x^2 - (r \sin \alpha) x + \frac{r}{r}$

$\Delta \geq 0 \Rightarrow r \sin^2 \alpha - 4 \left(\frac{r}{r} \right) \left(\frac{r}{r} \right) = r \sin^2 \alpha - 4 \geq 0 \Rightarrow r \sin^2 \alpha \geq 4$

$\sin^2 \alpha \geq 1 \Rightarrow \sin \alpha = \pm 1 \Rightarrow \frac{r}{r} x^2 - rx + \frac{r}{r} = 0$

$\Rightarrow rx^2 - rx + r = 0 \Rightarrow x^2 - x + 1 = 0$

$x = \frac{1}{2} = \frac{r}{r}$

(۶) ~~این معادله معادله درجه دوم است~~

$\frac{1}{r} \quad \frac{-1}{r} \quad 1 \quad \frac{1}{r}$

$\frac{1}{r} - x^2$ این معادله معادله درجه دوم است. $\frac{1}{r} \left(\frac{-1}{r} + 1 \right) = \frac{1}{r} \Rightarrow \frac{1}{r} = \frac{1}{r} (1 + \frac{1}{r})$

که در آن $\frac{1}{r}$ به صورت $\frac{1}{r}$ است.

$\frac{1}{r} \rightarrow \frac{1}{r}$

(۷) $rs = 2p + v \Rightarrow r \left(\frac{m+2}{m} \right) = 2 \left(\frac{-r}{m} \right) + v$

$\Rightarrow \frac{rm+2}{m} = \frac{-2r}{m} + v \Rightarrow rm+2 = -2r + vm \Rightarrow rm - vm = -4r$

$\Rightarrow r(m-v) = -4r \Rightarrow m-v = -4 \Rightarrow m = v-4$

$\Rightarrow m = 0 \leq 4$

$s - 2p = \frac{a}{r} + \frac{1}{r} = \frac{4}{r}$

$$1 \quad \textcircled{1} \quad \frac{r\alpha + \beta}{\omega \beta^r} = \frac{r\alpha}{\omega \beta^r} + \frac{\beta^r}{\omega} = \frac{r\alpha}{\omega \beta^r} + \frac{\beta^r}{\omega}$$

$$3 \quad = \frac{\alpha^r}{\omega} + \frac{\beta^r}{\omega} = \frac{s - rps}{\omega} \Rightarrow r = r, s = \omega$$

$$4 \quad \rightarrow \frac{90}{\omega} = \textcircled{19}$$

$$7 \quad \textcircled{9} \quad L = r \Rightarrow an^r + bn + r = rn + l$$

$$8 \quad an^r + (b-r)n - r = 0 \Rightarrow ra + rb - r - r = 0$$

$$9 \quad 9a - rb + r - r = 0$$

$$10 \quad \Rightarrow \begin{cases} ra + rb = 10 \\ 9a - rb = 0 \end{cases} \Rightarrow \begin{cases} ra + b = 0 \\ ra - b = 0 \end{cases} \Rightarrow \begin{cases} a = 1 \\ b = 1 \end{cases}$$

$$12 \quad \Rightarrow n^r + rn + r = r \Rightarrow \boxed{\frac{-r}{r} = n} \rightarrow \text{outside}$$

$$14 \quad \textcircled{10} \quad rn^r + (m+1)n + m + r = n \Rightarrow rn^r + mn + m + r = 0$$

$$15 \quad \Rightarrow \Delta = 0 \Rightarrow (m+1)^r - 1(m+r) = m^r - 1m - r = 0$$

$$16 \quad m = \textcircled{1r, -r}$$