

$$y = m x^2 = 17x + 8m - 1 \Rightarrow m \Delta = 7$$

$$m > 0 \Rightarrow \frac{r m^2 - 4 m - 1}{\Delta m} \leq r \Rightarrow \Delta m = -r m^2 - 2 m + 1 \leq 0 \Rightarrow m^2 + 2 m + 1 \leq 0$$

$$\Delta = 729 \Rightarrow m = \frac{17 \pm \sqrt{17^2 - 4 \cdot 1 \cdot 81}}{2 \cdot 1} = \begin{cases} 9 \\ -11 \end{cases} \Rightarrow m = 9 \quad \frac{-b}{2a} = x_{cat} = -\frac{17}{2} \cdot 9$$

✓

$$x^2 + r(a+1)x + ra - 1 = 0 \quad \alpha, \beta = a^r \quad -r(a+1) = \alpha + \beta$$

$$\Rightarrow ra - 1 = \alpha\beta = a^r \Rightarrow ra - 1 = a^r \Rightarrow a^r - ra + 1 = 0 \Rightarrow (a-1)^r = 0 \Rightarrow a = 1$$

$$x^2 + 2x + 1 = 0 \Rightarrow \alpha\beta = 1, \alpha + \beta = -2$$

$$\Rightarrow \alpha = -1 + \sqrt{r}, \beta = -1 - \sqrt{r}$$

✓

$$9x^2 - 4x - 8 = 0 \quad x^2 = z \Rightarrow z^2 - 4z - 8 = 0 \Rightarrow z = x^2 = \frac{4 \pm \sqrt{16 + 32}}{2} \Rightarrow x = \pm \sqrt{\frac{4 \pm \sqrt{48}}{2}}$$

$$\Rightarrow S = 0 \Rightarrow P = \frac{-(4 \pm \sqrt{48})}{2} \Rightarrow r p^2 - r s p + r s$$

$$r p^2 = r \frac{49 + 49 - 1 \pm \sqrt{49}}{2} \Rightarrow r p^2 = 118 - 1 \pm \sqrt{49}$$

$$r p^2 - r s p + r s = r \left(-\frac{4 \pm \sqrt{48}}{2} \right)^2 = \frac{1}{r} (49 + 49 + 1 \pm \sqrt{48}) = 99 \pm \sqrt{48}$$

1, 0

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$$y = k x^2 - 2x - 4 \Rightarrow y = -2x - 2$$

$$\frac{-b}{2a} \Rightarrow k = a \cdot b = -2 \Rightarrow \frac{-2}{rk} = \frac{-2}{k} \Rightarrow k \left(\frac{r}{k} \right)^2 - 2 \left(\frac{r}{k} \right) - 4 \Rightarrow \frac{r^2}{k} = \frac{-2}{k} \Rightarrow r = -2$$

$$\Rightarrow \frac{r}{k} = 2 \Rightarrow k = r$$

$$\frac{r}{k} = -2 - 4 = -6$$

✓

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$$y = -m x^2 + m x + 1 \quad \text{وإذاً } y = -m - x$$

$$-m x^2 + m x + 1 = -m - x \Rightarrow -m x^2 + m x + x + m + 1 = 0 \Rightarrow \Delta < 0$$

$$m^2 + 2m + 1 \leq 0 \Rightarrow m^2 + 2m + 1 \leq 0 \Rightarrow (m+1)^2 \leq 0 \Rightarrow m = -1$$

$$(m+1)(m+1) \leq 0 \Rightarrow \frac{-1}{0} = -1 \Rightarrow -\frac{1}{0}$$

$$\frac{-1}{1} = -1$$

$$m = -1 \Rightarrow (-1, -\frac{1}{0})$$

✓

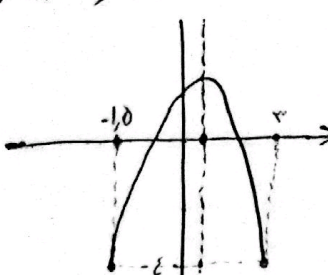
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$$\alpha, \beta \Rightarrow x^2 - 2\alpha x + \beta = 0 \Rightarrow \alpha + \beta = 5, \alpha \cdot \beta = 2 \Rightarrow \beta = 2 \Rightarrow \alpha = \frac{3}{2}$$

$$\frac{f(\alpha + \beta)}{\partial \rho} = 5 \quad \frac{f}{\partial} \times \frac{\alpha}{\beta} + \frac{\beta^2}{\partial} = \frac{\alpha^2}{\partial} + \frac{\beta^2}{\partial} = \frac{5^2 - 2^2}{\partial} = \frac{125 - 20}{\partial} = \frac{105}{\partial} = 19$$

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$(3, -1)$ و $(-1, 2)$
 مرکز دایره



$$x_1 - y_1 = x_2 - y_2$$

$$\Rightarrow \frac{3}{2} \rightarrow \text{طول راس}$$

$$\frac{3}{2} \times 2 = \frac{3}{2} \rightarrow \text{مجموع}$$

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$$x^2 - 2Kx + 0 = 0 \Rightarrow \text{انگیزه} = \frac{K}{2}$$

$$\left[\frac{K^2}{2} \right] = 5 \quad \sqrt{4K^2 - 20} = \frac{K}{2} \Rightarrow \frac{14}{9} K^2 = 4K^2 - 20 \Rightarrow 14K^2 = 36K^2 - 180$$

$$\Rightarrow 20K^2 = 180 \Rightarrow K^2 = 9$$

$$\Rightarrow \left[\frac{15}{2} \right] = \left[\frac{9}{2} \right] = 5 \checkmark$$

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$A = (3, y), B = (-2, y) \quad \alpha + \beta = 0$

فرضیه $\Rightarrow 1$

$$\frac{2\alpha + 2\beta}{2} = \frac{-b}{2a} = 2.5 \Rightarrow 2.5 = \frac{-2 + 3}{2} = -1 \Rightarrow \frac{-b}{2a} = 5 = -2$$

$$y - 1 = \alpha(x + 1) \Rightarrow y = \alpha x + \alpha + 1 \Rightarrow \alpha + \beta = 0 \Rightarrow 5^2 - 2\beta = 0$$

$$(-2)^2 - 2\left(\frac{\alpha + 1}{\alpha}\right) = 0 \Rightarrow \alpha = -\frac{2}{3} \Rightarrow C = \frac{1}{\alpha} = \alpha + 1 = \frac{1}{3} \checkmark$$

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$$-x^2 + 2x + m = 0 \Rightarrow x^2 - 2x - m = 0 \quad -m = x_1, x_2, x_1 + x_2 = 2$$

$$\Rightarrow \frac{2 + \sqrt{4 + 4m}}{2} < \frac{1}{2} \Rightarrow \sqrt{4 + 4m} < 1 \Rightarrow 4m < -3 \Rightarrow m < -\frac{3}{4}$$

$$2m + 2 > 0 \Rightarrow m > -1$$

$$\Rightarrow m \in \{-1, -\frac{3}{4}, -\frac{1}{2}, -\frac{1}{4}\} \Rightarrow m \text{ صحیح}$$

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