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$$f = \{(2-a, 4-b), (a+b, 2a+b)\}$$

حل:

$$\begin{cases} 2-a = a+b \\ 4-b = 2a+b \end{cases} \Rightarrow \begin{cases} 2a+b = 2 \\ a+b = 2 \end{cases} \Rightarrow \begin{matrix} b = 2 \\ a = 0 \end{matrix} \quad a+b = 2$$

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$$f(x) = \frac{ax^4 - bx^2}{x^3 + 2x} = x \Rightarrow ax^4 - bx^2 = x^4 + 2x^2 \rightarrow a = 1, b = -2$$

حل:

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$$y = x^2 + 4x - 1 \rightarrow y = (x+2)^2 - 5 \quad R_f = [-5, +\infty]$$

حل:

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$$ay = x^2 + 5x + 4 \rightarrow y = \frac{x^2 + 5x + 4}{a} = x \rightarrow x^2 + (5-a)x + 4 = 0$$

حل:

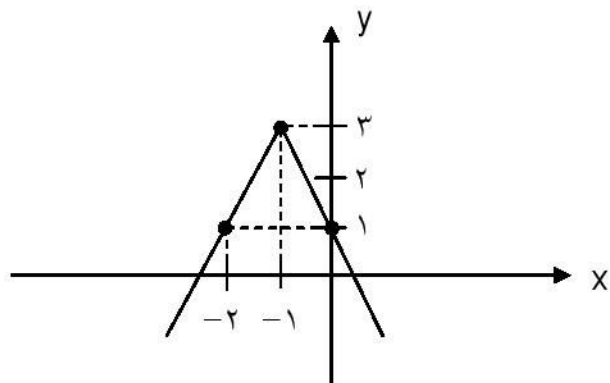
$$\Delta = (5-a)^2 - 16 = 0 \rightarrow \begin{cases} 5-a = 4 \rightarrow a = 1 \\ 5-a = -4 \rightarrow a = 9 \end{cases}$$

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حل:

$$y = -2|x+1| + 3$$

x	-2	-1	0
y	1	+3	1



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$$\underline{3} \times \underline{5} \times \underline{4} = 60$$

حل: ارقام: ٠ و ١ و ٢ و ٣ و ٤ و ٥

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$$4! \times 5!$$

حل:

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$$A = \{a, b, c, d, e, f, g\}$$

$$r^5 = 32$$

حل:

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$$c(n+3, n) = 10 \rightarrow \frac{(n+3)!}{n! \times 3!} = 10 \rightarrow (n+1)(n+2)(n+3) = 60$$

حل:

$$\rightarrow (n+1)(n+2)(n+3) = 3 \times 4 \times 5 \quad n = 2$$

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$$\frac{\binom{6}{2}}{2} = \frac{\frac{6!}{2! \times 4!}}{2} = 10$$

حل:

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حل:

$$\underline{5} \times \underline{7} \times \underline{4} = 140$$

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حل:

$$(n+3)! = 5 \cdot 4 \times n! \rightarrow (n+1)(n+2)(n+3) = 5 \cdot 4$$

$$(n+1)(n+2)(n+3) = 7 \times 8 \times 9 \rightarrow n = 6$$

$$\binom{7}{5} = \frac{7!}{5! \times 2!} = 21$$

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حل:

$$A = (-1, 2) \quad y = -2f(1-x) + 1$$

$$1-x = -1 \rightarrow x = 2 \rightarrow y = -2f(1-2) + 1 = -4 + 1 = -3$$

$$A' = (2, -3)$$

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حل:

$$12 \times (3-1) + 1 = 25 \text{ نفر}$$