

الف $4x^2 - 5x - 4 = 0 \quad x^2 - 5x - 16 = 0 \quad (x-9)(x+2) = 0 \quad x = \frac{-4}{4} \quad x = \frac{9}{4} \quad x = \frac{16}{9}, \frac{-1}{9} \quad (1)$

ب $3x^2 - 11x - 3 = 0 \quad x^2 - 11x - 9 = 0 \quad (x-9)(x+1) = 0 \quad x = \frac{9}{10} \quad x = \frac{-1}{10} \quad x = \frac{10}{9}, \frac{-1}{9}$

ج $4x^2 - 4x - 3 = 0 \quad x^2 - 4x - 12 = 0 \quad (x-4)(x+2) = 0 \quad x = \frac{4}{5} \quad x = \frac{-2}{5} \quad x = \frac{5}{4}, \frac{-1}{4}$

د $2x^2 - 5x - 12 = 0 \quad x^2 - 5x - 24 = 0 \quad (x-8)(x+3) = 0 \quad x = \frac{1}{10} \quad x = \frac{-3}{10} \quad x = \frac{10}{3}, \frac{-10}{3}$

الف $(x-5)(x+2) = 0 \quad x = -2, 5 \quad (2)$

ب $x^2 + 5x + 4 = 0 \quad (x+2)(x+3) = 0 \quad x = \frac{-2}{10} \leq \frac{-3}{10} \rightarrow -1 \leq \frac{-3}{10}$

ج $x^2 + 2x + 3 = 0 \quad \Delta < 0 \quad \Delta = 4 - 12 = -8$

د $3x^2 + 3x - 2 = 0 \quad \Delta = 9 - 4(-2 \times 3) = 9 + 24 = 33$

$x = \frac{-3 \pm \sqrt{33}}{6} \quad x_1 = \frac{-3 - \sqrt{33}}{6} \quad x_2 = \frac{-3 + \sqrt{33}}{6}$

$A \times B = 3 \times 4 = 12 \quad B^2 = 4 \quad 4 - 4 = 0 \quad (3)$

الف $m^2 = m + 2 \quad m^2 - m - 2 = 0 \quad (m-2)(m+1) = 0 \quad m = \frac{2}{x} \quad m = -1 \checkmark$

نقطه $(2, 1)$ و $(-1, 2)$

ب $m^2 = m + 2 \quad m^2 - m - 2 = 0 \quad (m-2)(m+1) = 0 \quad m = \frac{2}{x} \quad m = -1 \times$
 $(2, 1)$ و $(-1, 2)$ و $(-1, 3)$ و $(-1, 4)$

هیچ مقدار برای آن وجود ندارد.

$a^2 = 3a - 2 \quad a^2 - 3a + 2 = 0 \quad (a-2)(a-1) = 0 \quad a = 1 \times$
 $a = 2 \checkmark \quad (5)$

$1 - 1 = 0$
 $n=1 \rightarrow a+b=0$
 $n=2 \rightarrow 2a+b=1$
 $\begin{cases} a+b=0 \\ 2a+b=1 \end{cases} \quad a=1 \quad b=-1 \quad a \neq b = -4 \quad (4)$

$x=2, x^2 \rightarrow 4$

$2k - 3 = 4 - 3k \quad 5k = 7 \quad k = \frac{7}{5} = 1, 4 \quad (7)$

الف $\Rightarrow$ تابع زوج است یا است - الف
 $2=1$
 $y^3 - 4y = 1 - 4 + 3$
 $y^3 - 4y = 0 \quad y(y^2 - 4) = 0 \quad y = \pm 2 \quad (1)$

