

نام و نام خانوادگی پاسخنامه تشریحی تکلیف شماره کلاس <u>پایه نهم</u>	
الف) $4x^2 - 5x - 4 = 0 \rightarrow a=4, b=-5, c=-4$ $a \times c = 4 \times (-4) = -16 \rightarrow x^2 - 5x - 16 = 0 \rightarrow (x-9)(x+1) = 0$ $a=4 \rightarrow (x-\frac{9}{4})(x+\frac{1}{4}) = 0$ $(x-\frac{9}{4})(x+\frac{1}{4}) = 0$ $x = \frac{9}{4}, x = -\frac{1}{4}$ ب) $x^2 - 1x - 9 = 0 \rightarrow (x-9)(x+1) = 0$ $a=1 \rightarrow (x-\frac{9}{1})(x+\frac{1}{1}) = 0$ $(x-9)(x+1) = 0$ $x = 9, x = -1$ ج) $a \cdot c = 4 \times (-3) = -12 \rightarrow x^2 - 4x - 12 = 0 \rightarrow (x-6)(x+2) = 0$ $(x-6)(x+2) = 0$ $x = 6, x = -2$ د) $a \cdot c = 2 \times (-12) = -24 \rightarrow (x-8)(x+3) = 0$ $(x-8)(x+3) = 0$ $x = 8, x = -3$ الف) $(x-7)(x+2) = 0 \rightarrow x=7, x=-2$ ب) $\Delta = 25 - 4(2)(4) = 25 - 16 = 9$ $x = \frac{-5 \pm 3}{2} \Rightarrow x_1 = -1, x_2 = -\frac{5}{2}$ ج) $\Delta = 25 - 4(1)(4) = 25 - 16 = 9$ $x = \frac{-1 \pm 3}{2} \Rightarrow x_1 = 1, x_2 = -2$ د) $\Delta = 16 - 4(4)(-2) = 16 + 32 = 48$ $x = \frac{-4 \pm \sqrt{48}}{4}$	۲
۱. $A \times B = \{(1,2), (1,4), (2,2), (2,4), (3,2), (3,4)\}$ ۲. $B \times B = \{(2,2), (2,4), (4,2), (4,4)\}$ ۳. $A \times B - B^2 = \{(1,2), (1,4)\}$ <u>پاسخ</u>	۳
الف) $m^2 = m+2 \Rightarrow m^2 - m - 2 = 0 \Rightarrow m^2 - m - 2 = 0 \Rightarrow m=2, m=-1$ $2m \rightarrow (2,4), (2,1) \rightarrow$ <u>نقطه ها</u> ب) $m^2 = m+2 \Rightarrow m=2, m=-1 \Rightarrow (-1,4), (-1,1) \rightarrow$ <u>نقطه ها</u>	۴
۱ دردی: $a^2 = 4a - 2 \rightarrow a^2 - 4a + 2 = 0 \rightarrow a=1, a=3$ $a=2 \rightarrow \Delta = \{(1,4), (1,8), (3,4), (3,8)\} = \{(1,4), (3,8)\}$ $a=1 \rightarrow \{(1,1), (1,5)\}$	۵

(1) $x=1 \rightarrow x^2=1=a x+b \Rightarrow (1)^2=1=a(1)+b \Rightarrow a+b=.$ (2)-(1) $\downarrow$ (2) $x=2 \rightarrow a x+b=x^2 \Rightarrow a(1)+b=(2)^2 \Rightarrow 2 a+b=4$ } $2 a-a+b-b \Rightarrow a=1$ $a+b=0 \rightarrow b=-1 \rightarrow x^2-1$ $a \times b = 1 \times (-1) = (-1) \rightarrow$ جواب $\textcircled{D}$	6
$2k-2=6-2k$ $2k+2k=6+2 \rightarrow 4k=8 \rightarrow k=2$ $\textcircled{D}$	7
الف) $x=1 \Rightarrow y^2-4y=(1)^2-4(1)+4 \Rightarrow y^2-4y=0 \Rightarrow y(y-4)=.$ $y=\pm\sqrt{4}, y=0 \rightarrow$ تجواب نیست $\otimes$ ب) $x=1 \quad 1+y^2=4 \Rightarrow y^2=3 \Rightarrow y=\pm\sqrt{3} \rightarrow$ تجواب نیست $\otimes$ ج) $x=\pi \quad \cos \pi = -1 \quad y = \sqrt{1-(-1)} = \sqrt{2} \Rightarrow y = \pm\sqrt{2} \rightarrow$ تجواب نیست $\otimes$ د) $y^2+(x+1)^2=.$ $(x+1)^2=0 \Rightarrow x=-1$ $D_f = \{-1\}$ تجواب نیست $\otimes$ $\textcircled{D}$ $y^2=0 \Rightarrow y=0$ $\textcircled{D}$	8
الف) $\sqrt{y} = -x^2+2x-2 \Rightarrow y = (-x^2+2x-2)^2$ $y_1 = (-x^2+2x-2)^2$ $y_2 = (-x^2+2x-2)^2$ $y_1=y_2$ $\textcircled{D}$ ب) $y_1^2+2y_1=5x$ $y_2^2+2y_2=5x$ $y_1^2+2y_1=y_2^2+2y_2$ $(y_1-y_2)(y_1+y_2+2y_1+2y_2)+2(y_1-y_2)=.$ $y_1^2-y_2^2+2(y_1-y_2)=.$ $(y_1-y_2)(y_1+y_2+y_1+y_2+2)=.$ $\rightarrow y_1-y_2=0 \Rightarrow y_1=y_2$ $\textcircled{D}$ $y_1 = \frac{-3 \pm \sqrt{41}}{2A}$ $\Delta = B^2-4AC = (4r)^2 - 4(1)(9r^2+2) \Rightarrow -4y_2^2-8$	9
الف) $x=0 \Rightarrow x \sin y = y \times \sin(0) \Rightarrow$ م = 0 $\textcircled{D}$ ب) $x, y > 0 \quad \frac{x}{y} \Rightarrow$ $\textcircled{D}$ $t = \sqrt{\frac{x}{y}} \Rightarrow t > 0 \quad t + \frac{1}{t} = 2 \rightarrow t^2 - 2t + 1 = 0 \Rightarrow (t-1)^2 = 0 \Rightarrow t = 1$ $\sqrt{\frac{x}{y}} = 1 \Rightarrow \frac{x}{y} = 1 \rightarrow x = y \Rightarrow$ $\textcircled{D}$ $(x \neq y)$ $\textcircled{D}$	10

برای $x=0$ مقدار y در 0 است $\Rightarrow$ ~~م = 0~~ $\textcircled{D}$

$$(10-ب) \sqrt{\frac{x}{y}} + \sqrt{\frac{y}{x}} = 2$$

ہیں عبارت تنہا زمانی بہ قرار است کہ $1 = \sqrt{\frac{x}{y}}$ بالحد پس

$$\sqrt{\frac{x}{y}} = 1 \leadsto \frac{x}{y} = 1 \leadsto x = y \text{ و } (x, y \neq 0)$$

