

نام و نام خانوادگی ۱. اینها حل کنید پاسخنامه تشریحی تکلیف شماره ... کلاس دهم ... دفتر A

الف) $x^2 - 4x + 8 = 0 \xrightarrow{+4} x^2 - 4x + 12 = 4 \rightarrow (x-2)^2 = 1 \rightarrow x-2 = 1 \rightarrow \boxed{x=3}$
 $x-2 = -1 \rightarrow \boxed{x=1}$

ب) $x^2 + 8x + 14 = 9 \rightarrow (x+4)^2 = 9$
 $(x+4)(x+4) = 9$
 $x+4 = 3 \quad x+4 = -3$
 $\boxed{x=-1} \quad \boxed{x=-7}$

الف) $x^2 - 5x + 4 = 0 \quad (x-4)(x-1) = 0 \Rightarrow \boxed{x=4} \quad \boxed{x=1}$

ب) $x^2 - 5x - 14 = 0 \quad (x-7)(x+2) = 0 \rightarrow \boxed{x=7} \quad \boxed{x=-2}$

الف) $x^2 - 3x - 4 = 0 \quad \frac{-(-3) \pm \sqrt{(-3)^2 - (4 \times 1 \times -4)}}{2} = \frac{3 \pm \sqrt{9+16}}{2} = \frac{3 \pm \sqrt{25}}{2}$
 $x = \frac{3+5}{2} = 4 \quad x = \frac{3-5}{2} = -1$

ب) $2x^2 - 5x + \frac{1}{2} = 0 \quad \frac{-(-5) \pm \sqrt{(-5)^2 - (2 \times \frac{1}{2} \times 1)}}{2 \times 2} = \frac{5 \pm \sqrt{25-1}}{4} = \frac{5 \pm \sqrt{24}}{4}$
 $x = \frac{5+\sqrt{24}}{4} \quad x = \frac{5-\sqrt{24}}{4}$

الف) $x^2 - 3x + 2 = 0 \quad (x-2)(x-1) \rightarrow \boxed{x=2} \quad \boxed{x=1}$

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

الف) $x^2 - 12 + 7 = 0 \rightarrow x^2 - 12 + 3 \times \frac{4}{3} = 0 \quad (x-4)(x-3)$
 $x = \frac{4}{3} \quad x = \frac{3}{4} \rightarrow \boxed{x=\frac{4}{3}} \quad \boxed{x=\frac{3}{4}}$

ب) $3x^2 - 10x + 7 = 0 \rightarrow x^2 - 10x + 21 = 0$

$(x-7)(x-3) = 0 \rightarrow \boxed{x=\frac{7}{3}} \quad \boxed{x=3}$

$$\text{الف) } -3m^2 + am - 1 = 0 \quad \Delta = \frac{a^2 - 4(-3)(-1)}{-4} = \frac{a^2 - 12}{-4} = \frac{a^2 - 12}{-4} = \frac{a^2 - 12}{-4} = \frac{a^2 - 12}{-4}$$

$$\text{ب) } 2m^2 - m + 2 = 0 \quad \Delta = \frac{1^2 - 4(2)(2)}{4} = \frac{1 - 16}{4} = \frac{-15}{4} < 0 \Rightarrow \text{لا قدر يسري}$$

$$\text{ج) } 2m^2 - 5m + 2 = 0 \quad \Delta = \frac{25 - 4(2)(2)}{4} = \frac{25 - 16}{4} = \frac{9}{4} > 0 \quad m = \frac{5 \pm 3}{4} = 1 \quad n = \frac{5 - 0}{5} = 1 \quad \boxed{n=1}$$

$$\text{د) } 2m^2 - m + 1 = 0 \quad \Delta = \frac{1^2 - 4(2)(1)}{4} = \frac{1 - 8}{4} = \frac{-7}{4} < 0 \Rightarrow \text{لا قدر يسري}$$

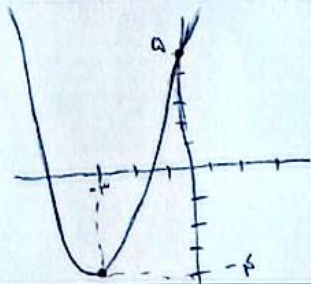
$$\Delta > 0 \rightarrow b^2 - 4ac > 0 \rightarrow 9 - 12 > 0 \rightarrow 9 > 12 \rightarrow \boxed{c < \frac{9}{4}} \quad \text{الف)}$$

$$\Delta = 0 \rightarrow b^2 - 4ac = 0 \rightarrow 9 - 12 = 0 \rightarrow 12 = 9 \rightarrow \boxed{c = \frac{9}{4}} \quad \text{ب)}$$

$$\Delta < 0 \rightarrow b^2 - 4ac < 0 \rightarrow 9 - 12 < 0 \rightarrow 9 < 12 \rightarrow \boxed{\frac{9}{4} < c} \quad \text{ج)}$$

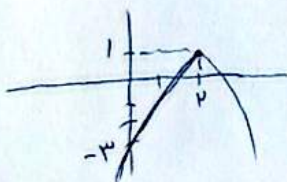
$$\Delta \geq 0 \rightarrow b^2 - 4ac \geq 0 \rightarrow 9 - 12 \geq 0 \rightarrow 9 \geq 12 \rightarrow \boxed{\frac{9}{4} \geq c} \quad \text{د)}$$

$$m = -\frac{b}{2a} \rightarrow -\frac{-9}{2} = -\frac{9}{2} \quad y = (-\frac{9}{2})^2 + 4(-\frac{9}{2}) + 5 = -\frac{1}{4} \quad \text{الف) منبسط دار}$$



ب)

$$m = -\frac{b}{2a} \rightarrow -\frac{-5}{-2} = -\frac{5}{2} \quad y = -\frac{5}{2} + 1 - 3 = -\frac{7}{2} \quad \text{الف)}$$



$$\begin{vmatrix} 1 & -1 \\ 1 & 0 \end{vmatrix} \quad \begin{vmatrix} 1 & -3 \\ 1 & 0 \end{vmatrix} \quad \begin{vmatrix} 1 & -1 \\ 1 & 0 \end{vmatrix} \quad \begin{vmatrix} 1 & -3 \\ 1 & 0 \end{vmatrix} \quad \begin{vmatrix} 1 & -1 \\ 1 & 0 \end{vmatrix} \quad \begin{vmatrix} 1 & -3 \\ 1 & 0 \end{vmatrix}$$

ب)

$$\text{الف) } 5^2 - 2p \rightarrow (-3)^2 - 2 \times (-2) = 9 + 4 = 13$$

$$\text{ب) } 5^2 - 3p \rightarrow (-3)^2 - (2 \times (-2) \times (-2)) = -27 - 12 = -39$$