

$$\text{الف)} \quad x^2 - 6x + 1 = 0 \Rightarrow x^2 - 6x + 9 = 1 \Rightarrow (x-3)^2 = 1$$

$$x-3 = \pm\sqrt{1} \Rightarrow x = 4 \text{ و } 2 \Rightarrow \text{ریشه ها مساوی} = \boxed{2 \text{ و } 4}$$

$$\text{ب)} \quad x^2 + 8x + 7 = 0 \Rightarrow x^2 + 8x + 16 = 9 \Rightarrow (x+4)^2 = 9$$

$$x+4 = \pm\sqrt{9} \Rightarrow x = -1 \text{ و } -7 \Rightarrow \text{ریشه ها مساوی} = \boxed{1 \text{ و } 7}$$

$$\text{الف)} \quad x^2 - 5x + 6 = 0 \Rightarrow (x-2)(x-3) = 0 \Rightarrow x = \boxed{2 \text{ و } 3}$$

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

$$\text{الف)} \quad x^2 - 3x - 5 = 0 \Rightarrow \frac{-b \pm \sqrt{\Delta}}{2a} = \frac{3 \pm \sqrt{9+20}}{2} = \frac{3 \pm \sqrt{29}}{2}$$

$$\text{ب)} \quad 4x^2 - 5x + \frac{1}{4} = 0 \Rightarrow \frac{-b \pm \sqrt{\Delta}}{2a} = \frac{5 \pm \sqrt{16-1}}{8} = \frac{5 \pm \sqrt{15}}{8}$$

$$\frac{5 - \sqrt{15}}{8}$$

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

$$\text{ب)} \quad 4x^2 + x - 3 = 0 \Rightarrow \frac{-b \pm \sqrt{\Delta}}{2a} = \frac{-1 \pm \sqrt{1+12}}{8} = \frac{-1 \pm \sqrt{13}}{8}$$

$$\frac{-1 + \sqrt{13}}{8} = \frac{7}{8} \Rightarrow \boxed{\frac{7}{8}}$$

$$\text{الف)} \quad 3x^2 + 5x - 1 = 0 \Rightarrow \frac{-b \pm \sqrt{\Delta}}{2a} = \frac{-5 \pm \sqrt{25-12}}{6} = \frac{-5 \pm \sqrt{13}}{6}$$

$$\text{ب)} \quad 2x^2 - x + 2 = 0 \Rightarrow \frac{-b \pm \sqrt{\Delta}}{2a} = \frac{1 \pm \sqrt{1-16}}{4} = \frac{1 \pm \sqrt{-15}}{4} = \text{جواب ندارد}$$

$$\text{ب)} \quad 2x^2 - 2x + 1 = 0 \Rightarrow \frac{-b \pm \sqrt{\Delta}}{2a} = \frac{2 \pm \sqrt{4-8}}{4} = \frac{2 \pm \sqrt{-4}}{4} = \frac{2 \pm 2i}{4} = \frac{1 \pm i}{2} \Rightarrow \text{جواب دارد}$$

$$\text{ب)} \quad 2x^2 - x + 1 = 0 \Rightarrow \frac{-b \pm \sqrt{\Delta}}{2a} = \frac{1 \pm \sqrt{1-8}}{4} = \frac{1 \pm \sqrt{-7}}{4} \Rightarrow \text{جواب ندارد}$$

ii) $\omega n' - 15m + V = 0 \Rightarrow n' - 15m + 1\omega = 0$
 $(x-v)(n-\omega) \Rightarrow n = \omega \text{ or } V \Rightarrow n = \frac{\omega}{V} \text{ or } \frac{V}{V}$

$$\rightarrow) r_m^p - 10m + V = 0 \Rightarrow r^p - 10m + r = (r-1)(r-V)$$

$$m = r^p V \Rightarrow r = \frac{r}{V} \cdot \frac{V}{V}$$

الف) $\sqrt{\Delta} = \sqrt{b^2 - 4ac} = \sqrt{1 - 4c}$ (a=1)

$$\sqrt{\Delta} = 0 \Rightarrow \sqrt{b^2 - 4ac} = 0 \Rightarrow \sqrt{9 - 4c} = 0$$

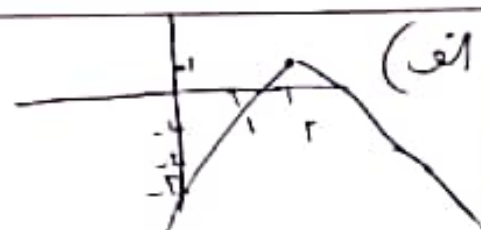
$$7.) \sqrt{\Delta} = \sqrt{0} = 0 = \sqrt{0 - 4ac} = \sqrt{0} \Rightarrow \sqrt{9 - 4c} = 0 \Rightarrow c = \frac{9}{4}$$

$$7) \quad n^2 - rn + ra = (n-1)(n-1) = a = \boxed{1}$$

$y = n^2 + 3n + 10 \Rightarrow \frac{-b}{2a} = \frac{-3}{2} = -1.5$



$$y = -x^r + rx - r \quad \left| \quad \frac{-b}{1a} = \frac{-r}{-r} = r \right|$$



$$\frac{\sqrt{\Delta}}{r/04} = \frac{\sqrt{14-12}}{2} = \frac{2}{2} = 1$$

$$y+1 = \begin{array}{|c|} \hline \uparrow \\ \hline \end{array}$$

$$s = \frac{-b}{a} = \frac{r}{1} = r$$

$$17 = \frac{c}{a} = \frac{-f}{1} = -4$$

$$\text{c) } S - r_p = 9 - (-1) = 10$$

$$+) S - rSP = rV - (-1\lambda) = rV + 1\lambda \quad \boxed{FW}$$