

$$(1)^m > 0 \Leftrightarrow a > 0 \Leftrightarrow \Delta \text{ min } \omega \text{ بـ } b$$

$$\begin{aligned} \text{بـ } y=2 \text{ بـ } x=\frac{r}{m} \text{ لـ } \Delta \text{ لـ } \frac{y}{m} = \frac{1r}{m} = \frac{b}{ra} : \text{ لـ } \frac{b}{ra} \text{ لـ } \frac{-b}{ra} \\ \Rightarrow m\left(\frac{r}{m}\right)^2 + (-1r \times \frac{r}{m}) + am - 1 = 2 \Rightarrow -1 + am - \frac{r^2}{m} = 2 \Rightarrow am^2 - rm - 3r = 0 \\ \Rightarrow \Delta = b^2 - 4ac = 4r^2 \Rightarrow m = \frac{r \pm \sqrt{4r^2}}{2a} = \frac{r \pm 2r}{2} \Rightarrow m = \frac{3r}{2} \text{ و } m = -\frac{r}{2} \\ \Rightarrow \boxed{m=3} \quad \left\{ \begin{array}{l} \text{لـ } \frac{-b}{ra} = \frac{-r}{ra} = \frac{r}{r} = 1 \rightarrow \text{بـ } 1 \end{array} \right. \quad (7) \end{aligned}$$

$$\begin{aligned} x^2 + 2(1+a)x + 2a - 1 = 0 \Rightarrow \alpha + \beta = -2(1+a) \text{ و } \alpha \cdot \beta = 2a - 1 \Rightarrow \\ \text{بـ } \alpha \cdot \beta = 2a - 1 \Rightarrow \alpha^2 = 2a - 1 \Rightarrow \alpha^2 - 2a + 1 = 0 \Rightarrow (\alpha - 1)^2 = 0 \Rightarrow \\ \boxed{\alpha = 1} \quad (7) \end{aligned}$$

$$\begin{aligned} \Delta = b^2 - 4ac \\ x^2 = t \Rightarrow t^2 - vt - a = 0 \Rightarrow t = \frac{v \pm \sqrt{v^2 + 4a}}{2} = \frac{v \pm \sqrt{49}}{2} \text{ و } t = x^2 > 0 \Rightarrow \\ \frac{v - \sqrt{49}}{2} < 0 \Rightarrow t = \frac{v + \sqrt{49}}{2} \Rightarrow \frac{v}{2} = \pm \sqrt{t} \text{ و } \text{بـ } \sqrt{t} = +a \text{ و } -a \Rightarrow (1, \sqrt{a}) \\ S = (-a) + (a) = 0 \text{ و } P = (-a)(a) = -a^2 \Rightarrow 2P^2 - 2SP + 2S = 2P^2 \Rightarrow \\ 2P^2 = 2 \times \left(\sqrt{\frac{v + \sqrt{49}}{2}} \right) \left(-\sqrt{\frac{v + \sqrt{49}}{2}} \right) = -2 \sqrt{\left(\frac{v + \sqrt{49}}{2} \right)^2} = -2 \times \left(\frac{v + \sqrt{49}}{2} \right) = -v - \sqrt{49} \\ \frac{1}{2} (49 + 49 + 1\sqrt{49}) = 49 + \sqrt{49} \end{aligned}$$

$$\begin{aligned} \left| \frac{-b}{ra} = \frac{-r}{ra} = \frac{r}{r} \right. \\ \left. y = \frac{r}{r} - \frac{1}{r} - y = -\frac{r}{r} - y \right\} \Rightarrow y = -r - r \Rightarrow -r\left(\frac{r}{r}\right) - r = -\frac{r}{r} - y \\ \Rightarrow 2r = r \Rightarrow \boxed{r=1} \Rightarrow \text{بـ } \frac{-r}{r} - y = -1 - y \quad (7) \end{aligned}$$

$$\begin{aligned} 1 + m^2 - m^2 = -m - m \Rightarrow -m^2 + (1+m)x + (1+m) > 0 \\ \text{بـ } \Delta < 0 \Rightarrow b^2 - 4ac < 0 \Rightarrow (1+m)^2 + (-1 \times (-m)(1+m)) < 0 \\ m^2 + 1 + 2m + 1 + m < 0 \Rightarrow m^2 + 3m + 2 < 0 \Rightarrow (m+1)(m+2) < 0 \\ \frac{-1}{+1} < m < \frac{-2}{+1} \Rightarrow -1 < m < -2 \Rightarrow \text{بـ } \text{مقدار صحيح} \quad (7) \end{aligned}$$