

$$\frac{-b}{ra} = -1 \rightarrow b = ra \quad \frac{-\Delta}{ra} = 9 \rightarrow -44a = b^r - 4a$$

$$9a + rb + c = 1 \xrightarrow{b=ra} 9a + 4a + c = 1 \rightarrow c = 1 - 13a \rightarrow -13a = b^r - 4a \xrightarrow{*}$$

$$-13a = b^r - 4a \rightarrow 9a + 4a + c = 1 \rightarrow 44a^r + 4a = 0 \rightarrow a = 0 \quad X$$

$$-\frac{1}{4}a^r - 11a = 1 \rightarrow b = -1, c = 11$$

$$-\frac{1}{4}a^r - 11a = 1 \quad \checkmark$$

$$\Delta Y_0 \rightarrow m^r - 4(11(m+4)) = m^r - 4(11m+44) = m^r - 44m - 176 \rightarrow$$

$$(m-4)(m-4) \rightarrow \frac{-4}{12} - \frac{12}{-4} \rightarrow \frac{m+4}{4} \rightarrow \frac{-4}{-4+}$$

$$\frac{-m}{4} \rightarrow \frac{0}{+4-} \quad -4 < m < -4 \quad \checkmark$$

$$\Delta Y_0 \rightarrow 4m^r + 1 - 4m - 4(12)(1-m) = 4m^r + 1 - 4m - 48(1-m) = 4m^r - 4m + 48m + 1 - 48$$

$$4m^r + 48m - 47 \rightarrow \frac{1-4m}{4} = \frac{4}{4-m} \rightarrow 4 = (1-4m)(4-m) \rightarrow 4 = 4 - m - 4m + 4m^r$$

$$4m^r - 4m - 4 = 0 \rightarrow m^r - 4m - 1 = 0 \rightarrow (m-4)(m+1) \rightarrow m = -1 \rightarrow \Delta Y_0 \quad \checkmark$$

$$m^r - 4m - 1 = 0 \rightarrow m_1 + m_2 = 4, m_1 \times m_2 = -1 \rightarrow m_1^r + m_2^r = 1 - 4(-1)(1) = 12$$

$$m_1^r + \frac{1}{m_2} = \frac{m_1^r \times m_2 + 1}{m_2} = \frac{-4m_1^r + 1}{m_2}$$

$$m_2^r + \frac{1}{m_1} = \frac{m_2^r \times m_1 + 1}{m_1} = \frac{-4m_2^r + 1}{m_1}$$

$$\sum = \frac{1-4m_1^r}{m_2} + \frac{1-4m_2^r}{m_1} = \frac{m_1 - 4m_1^r m_2 - 4m_2^r m_1 + m_2}{m_1 m_2}$$

$$\sum = \frac{1-4(12)}{-4} = \frac{-47}{-4} = 11.75$$

$$P_2 = \frac{(1-4m_1^r)(1-4m_2^r)}{m_1 m_2} = \frac{1-4m_1^r - 4m_2^r + 16m_1^r m_2^r}{-4} = \frac{1-4(9)+16(12)}{-4} = \frac{171}{-4}$$

$$m^r - 5m + P = 0 \rightarrow m^r - 11.75m - \frac{171}{4} = 0 \quad \checkmark$$

$$m = 8 \rightarrow \left(8 + \frac{1}{8} + 1\right)(8-1) = 2 + \quad \checkmark$$

$$\rightarrow \text{سب} = 8 - 8 + 1 - \frac{1}{8} + 8 - 1 + \frac{1}{8} = 8 - \frac{1}{8} = 7.875 \rightarrow 8 - 1 = 7$$

$$8^2 - 2 \cdot 8 - 1 = 0 \rightarrow 8 = 2 \rightarrow 2^2 - 2 \cdot 2 - 1 = 0 \rightarrow 2 = 1 \pm \sqrt{2} \rightarrow 8 = 1 \pm \sqrt{2} \rightarrow 8 = \sqrt{1+\sqrt{2}}, \sqrt{1-\sqrt{2}}$$

$$m = 8 \rightarrow m_1 = (8)^r \rightarrow m_1 + m_2 = 1 + \sqrt{2} + 1 - \sqrt{2} = 2 \quad \checkmark$$

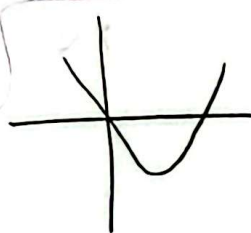
$$\frac{b}{a} = \frac{r}{r} \rightarrow M_1 \times M_r = \frac{r}{r} \rightarrow M_r = r M_1 \rightarrow r M_1 = \frac{r}{r} \rightarrow 9 M_1 = r \rightarrow 3 M_1 = r$$

$$M_1 = \frac{r}{r} \text{ و } M_r = r \quad \frac{-b}{a} = \frac{a}{r} = \frac{1}{r} \rightarrow \frac{-b}{a} = \frac{a}{r} = \frac{-1}{r} \rightarrow a = \begin{cases} a = -1 \\ a = 1 \end{cases}$$

$$M_1 = -\frac{r}{r} \rightarrow M_r = -r$$

$$1 - (-1) = 14 \text{ جواب}$$

$$\frac{-\frac{r}{r}}{-\frac{r}{r} + a} = -\frac{r}{r} < a < 0$$



$$a < 0 \quad \frac{-b}{a} < 0 \rightarrow \frac{-(r+1a)}{r} < 0$$

استرک دو ناحیه تعریف است

$$M = -\frac{-r}{-r} = -1 \text{ و } M = -\frac{a}{r} \rightarrow -\frac{a}{r} = -1 \rightarrow a = r$$

$$y = M^r + rM - r \rightarrow M^r + rM - r = 1 \rightarrow M^r + rM - r = 0 \rightarrow \begin{cases} M = 1 \\ M = -r \end{cases}$$

$$y = -M^r - rM + b \rightarrow 1 = -9 + 4 + b \rightarrow b = 4 \text{ و } -M^r - rM + b \rightarrow 1 = -1 - r + b \rightarrow b = 4$$

$$ab = 14$$

$$M_1, M_r \rightarrow y_1 + \frac{1}{r} \text{ و } y_r + \frac{1}{r} \rightarrow S = y_1 + y_r + 1 = \frac{a}{r} \rightarrow -\frac{1}{r} + 1 = \frac{a}{r}$$

$$y_1, y_r \rightarrow y_1 + y_r = S = -\frac{a}{ra} = -\frac{1}{r}$$

$$\frac{a}{r} = \frac{1}{r} \rightarrow a = 1$$

$$M_1 M_r = (y_1 + \frac{1}{r})(y_r + \frac{1}{r}) = y_1 y_r + \frac{y_1}{r} + \frac{y_r}{r} + \frac{1}{r^2} \Rightarrow -ra + \frac{1}{r}(-\frac{1}{r}) + \frac{1}{r^2} \rightarrow$$

$$y_1 y_r = -ra$$

$$-ra = \frac{b}{r} \xrightarrow{a=1} -r = \frac{b}{r} \rightarrow b = -r$$

$$\left[\frac{1x-9}{r} \right] = \left[-\frac{9}{r} \right] = -2$$

$$m = -M \checkmark \\ m = 0 \text{ X}$$

$$\begin{cases} M^r + rM - rm = y \\ M^r + 4M + m = y \end{cases} \rightarrow M^r + rM - rm = M^r + 4M + m \rightarrow 4M + 5m = 0 \rightarrow (4)(m+M) = 0$$

$$M^r + 4M - M = 0 \rightarrow M^r + 3M = 0 \rightarrow (M)(M+3) = 0 \rightarrow M = -3 \rightarrow \text{OX}$$

$$M^r + 4M - 3(-M) = 0 \rightarrow M^r + 7M = 0$$

$$M^r + 4M + 3 = 0 \rightarrow \begin{cases} M = -1 \\ M = -3 \end{cases}$$

$$M^r + 4M - 10 = 0$$