

نام و نام خانوادگی باسرخنامه تشریحی تکلیف شماره ۱۲ کلاس برنامہ

$$\overline{AB} \rightarrow m = \frac{\Delta y}{\Delta x} \Rightarrow \frac{-11}{2} = -\frac{11}{2} \quad \left(\frac{+1}{2} \right)$$

نقطه برخورد مستقیم
نقطه برخورد منفی

نمودار و لایحه AB می‌گذرد
($m = \frac{1}{2}$)

(۲)

$$(y-1) = \frac{1}{2}(x-3)$$

معادله
معادله منفی

$$y = \frac{x}{2} - \frac{3}{2} + 1 \rightarrow y = \frac{x}{2} + \frac{1}{2}$$

$$BC = \sqrt{16+9} = 5 \quad m_{BC} = \frac{\Delta y}{\Delta x} = \frac{4}{-3} = -\frac{4}{3} \quad y-4 = -\frac{4}{3}(x-2) \Rightarrow y = -\frac{4}{3}x + \frac{20}{3}$$

$$m_{AH} = \frac{4}{3} \quad y-1 = \frac{4}{3}(x-2) \quad BC - AH = 5 - 2 = 3$$

نقطه برخورد
نقطه برخورد منفی

(۲)

$$\begin{cases} y = -\frac{4}{3}x + \frac{20}{3} \\ y = \frac{4}{3}x - \frac{2}{3} \end{cases} \Rightarrow -\frac{4}{3}x + \frac{20}{3} = \frac{4}{3}x - \frac{2}{3} \Rightarrow 20x = 22 \Rightarrow x = \frac{11}{10}$$

نقطه
H

$$2y = x + 1 \quad 4y = 5x + 2 \quad d = 2r \quad S = \pi R^2 = \pi \left(\frac{24 \times 2}{1.4} \right) = 1.1 \pi$$

$$d = \frac{|c-c'|}{\sqrt{a^2+b^2}} = \frac{2}{\sqrt{1+\frac{16}{9}}} = \frac{2}{\frac{5}{3}} = \frac{6}{5} = \frac{4}{5} \times \frac{3}{4} = \frac{3}{5} = \frac{4\sqrt{5}}{10} = r$$

(۲)

$$m_{AB} = \frac{\Delta y}{\Delta x} = \frac{2}{-2} = -1 \Rightarrow m_{CH} = +1 \quad y+2 = 1(x+1) \quad y = x-1$$

$$y-2 = -1(x-2) \Rightarrow y = -x+4$$

$$d = \sqrt{\frac{1}{4} + \frac{1}{4}} = \sqrt{\frac{2}{4}} = \frac{1}{\sqrt{2}} = \frac{\sqrt{2}}{2}$$

(۲)

$$\begin{cases} y = x-1 \\ y = -x+4 \end{cases} \Rightarrow x-1 = -x+4 \Rightarrow 2x = 5 \Rightarrow x = \frac{5}{2} \quad y = \frac{3}{2}$$

$$(5-m)y = -(2m-2)x+1 \quad (2m-2)y = (m+1)x+1$$

$$y = \frac{2m+1}{5-m}x + \frac{1}{5-m} \quad y = \frac{m+1}{2m-2}x + \frac{1}{2m-2}$$

$$\frac{-2m+2}{5-m} \times \frac{m+1}{2m-2} = -1 \Rightarrow -\frac{2m^2-2m+2m+2}{5m^2-12m+10} = -1 \Rightarrow 5m^2-12m+10 = 0$$

Δ ندارد پس وقت این معادله

رسم نمودار می‌شود

(۲)

(۵)

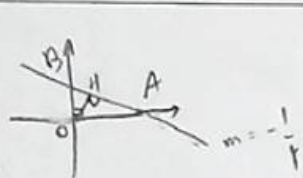
$$AB \Rightarrow y = -\frac{n}{r} + \frac{r}{r} \quad | \quad AC \Rightarrow y = r(n-1) \quad | \quad BC \Rightarrow y = -n+r$$

$$A \text{ نقطه: } -\frac{n}{r} + \frac{r}{r} = r(n-1) \rightarrow \frac{r}{r} = \frac{r}{r} \rightarrow n=1, y=1$$

$$B \text{ نقطه: } -\frac{n}{r} + \frac{r}{r} = -n+r \rightarrow \frac{n}{r} = \frac{r}{r} \rightarrow n=0, y=-1$$

$$C \text{ نقطه: } r(n-1) = -n+r \rightarrow rn = \Delta \rightarrow n = \frac{\Delta}{r}, y = \frac{r}{r}$$

$$M \left| \begin{array}{c} \frac{1}{r} \\ \frac{1}{r} \end{array} \right| \rightarrow AM = \sqrt{\frac{r^2}{r^2} + \frac{r^2}{r^2}} = \sqrt{\frac{2r^2}{r^2}} = \frac{2r}{r} = 2$$



$$OH = \sqrt{r^2} = r\sqrt{2}$$

$$m_{OH} = 1 \rightarrow y = x$$

$$OH = \sqrt{n^2 + r^2} = \sqrt{\Delta^2 + r^2} = r\sqrt{2} = 2r$$

$$H \left| \begin{array}{c} \frac{1}{r} \\ \frac{1}{r} \end{array} \right| y - x = -\frac{1}{r}(n-r) \Rightarrow y = -\frac{1}{r}n + 1$$

$$AB = \sqrt{1^2 + 1^2} = \sqrt{2} = \frac{2}{\sqrt{2}}$$

$$my = rn + r \rightarrow y = \frac{r}{n}n + r \rightarrow -\frac{r}{n}n = r \rightarrow n = -\frac{r}{r}$$

$$y = r(1-n) + r \rightarrow (n-1)r = r \rightarrow n = \frac{r}{r-1}$$

$$\frac{r}{n} + r = (1-n)r + r$$

$$\frac{r}{n} = 1-n$$

$$r = n - n^2 \rightarrow n^2 - n + r = 0$$

$$\Delta = 1 - 4r < 0$$

$$y = r$$

$$\frac{\Delta}{r} = \frac{1}{r}(r \times 0)$$

$$D = \frac{\Delta}{r}$$

$$\left| \frac{r}{n-1} - \left(-\frac{r}{r}\right) \right| = \frac{\Delta}{r}$$

$$r + n^2 - n = \Delta n - \Delta \rightarrow n^2 - 4n + 1 = 0$$

$$n = \frac{4 \pm \sqrt{16-4}}{2} = \frac{4 \pm \sqrt{12}}{2} = \frac{4 \pm 2\sqrt{3}}{2} = 2 \pm \sqrt{3}$$

$$n = \frac{4 - 2\sqrt{3}}{2} = 2 - \sqrt{3}$$

$$n_m = \frac{n_A + n_{A'}}{2} \Rightarrow r = \frac{r + r_{A'}}{2} \Rightarrow n_{A'} = r$$

$$y_m = \frac{y_A + y_{A'}}{2} \Rightarrow -1 = \frac{1 + y_{A'}}{2} \Rightarrow y_{A'} = -3$$

$$A' \left| \begin{array}{c} r \\ -\Delta \end{array} \right|$$

$$y' + \Delta = r(n-r)$$

$$y' = rn - r$$

$$AA' \perp d_y \rightarrow m_y = 1 \rightarrow m_{AA'} = -1 \rightarrow y - 1 = -1(n-r) \Rightarrow y = -n + r$$

$$\begin{cases} y = -n + r \\ y = n + \Delta \end{cases} \rightarrow -n + r = n + \Delta \rightarrow -2 = 2n \rightarrow n = -1$$

$$y = r$$

$$B \left| \begin{array}{c} -1 \\ r \end{array} \right|$$

$$AA' \perp B$$

$$n_B = \frac{n_A + n_{A'}}{2} \rightarrow -1 = \frac{1 + n_{A'}}{2} \Rightarrow n_{A'} = -3$$

$$A' = (-3, 1)$$

$$(1+r=1\Delta)$$