

Subject:

Year: Month: Day: ()

Page: ()

طراحی و محاسبه مدار با نرم افزار آلفا 17

$$\frac{\Delta y}{\Delta x} = \frac{m-k}{r} = \frac{-1}{r} \rightarrow m-k = -r \Rightarrow \Delta y = r / \sqrt{\Delta x^2 + \Delta y^2} = \sqrt{r^2 + 9} = r\sqrt{5} \Rightarrow S = \varepsilon \Delta$$

$$5. \sqrt{\Delta x^2 + \Delta y^2} = \sqrt{14 + 9} = 5 / m_{AB} = m_{CD} = \frac{-r}{\varepsilon} = \frac{r}{-1-rm} \rightarrow n = \frac{r}{r} \rightarrow C = (\frac{r}{r}, y) \rightarrow O = (-\frac{r}{r}, y+r)$$

$$m_{BC} \times m_{CD} = -1 \Rightarrow m_{BC} = \frac{\varepsilon}{r} = \frac{y-1}{-\frac{r}{r}} \Rightarrow y-1 = -r \Rightarrow y = -1 \Rightarrow C = (\frac{r}{r}, -1) \rightarrow O = (-\frac{r}{r}, r)$$

$$BC = \sqrt{\Delta x^2 + \Delta y^2} = \sqrt{9\frac{r}{\varepsilon} + \frac{r^2}{\varepsilon^2}} = \frac{\Delta}{r}$$

$$r(\frac{\Delta}{r} + \Delta) = \Delta + 1 = 1\Delta$$

$$10. y = \frac{(-rm)}{mr-1}x + \frac{r}{mr-1} \rightarrow \tan \theta = \frac{-rm}{mr-1} = \sqrt{r} \rightarrow \sqrt{r}mr + rm - \sqrt{r} = 0$$

$$|m_1 - m_2| = \frac{\sqrt{\Delta}}{|a|} = \frac{\sqrt{14}}{\sqrt{r}} = \frac{r}{\sqrt{r}} = \frac{r\sqrt{r}}{r}$$

$$BC \Rightarrow y = \frac{m}{r}x - \frac{b}{r} = y - rx + r = 0 \rightarrow AH = \frac{|9-r+r|}{\sqrt{\Delta}} = \frac{1}{\sqrt{\Delta}} = \frac{1\sqrt{5}}{\Delta} = r\sqrt{5}$$

$$\frac{\Delta y}{\Delta x} = \frac{A}{\varepsilon} = r$$

$$15. AB = BC \rightarrow -rx + v = \frac{v}{r}x - \frac{19}{r} \Rightarrow \frac{11}{r}x = \frac{r^2}{r} \Rightarrow x_B = r \Rightarrow y_B = 1$$

$$-rx + v \quad \frac{v}{r}x - \frac{19}{r}$$

$$BH = \frac{|r^2 - 9 - 19|}{\sqrt{r\Delta}} = \frac{r^2}{\Delta}$$

$$20. \frac{x}{-\frac{r}{\varepsilon}} + \frac{y}{-\frac{r}{\varepsilon}} = 1 \Rightarrow -\frac{r}{\varepsilon}x - \frac{r}{\varepsilon}y = \frac{r}{\varepsilon} \xrightarrow{x=y} -\frac{2r}{\varepsilon}x = \frac{r}{\varepsilon} \rightarrow x = -\frac{r}{2\varepsilon}, y = -\frac{r}{2\varepsilon}$$

$$L = \sqrt{r^2 + \varepsilon^2} = \frac{r}{\varepsilon} \times \sqrt{r^2 + \varepsilon^2} = \frac{r\sqrt{r^2 + \varepsilon^2}}{\varepsilon}$$

$$y = ax + 1 \quad y = \frac{1}{a}x + \frac{a-1}{a} \quad \left. \begin{array}{l} a = \frac{1}{a}, a^2 = 1 \Rightarrow a = \pm 1 \end{array} \right\} \begin{array}{l} \xrightarrow{1} y = x+1 \quad \sqrt{1+1} \text{ شعاع دایره} \\ \xrightarrow{-1} y = -x+1 \quad \sqrt{1+1} \text{ شعاع دایره} \end{array}$$

$$25. \left. \begin{array}{l} y = x+1 \rightarrow y-x=1 \\ y = x \rightarrow y-x=0 \end{array} \right\} \frac{|1-0|}{\sqrt{r}} = \frac{\sqrt{r}}{r}$$

$$\left. \begin{array}{l} \frac{\sqrt{r}}{r} \times \frac{\sqrt{r}}{r} = \frac{1\varepsilon}{\varepsilon} \\ \sqrt{r\Delta - \frac{1}{r}} = \sqrt{\frac{r^2}{r}} = \frac{r}{\sqrt{r}} = \frac{\sqrt{r}}{r} \end{array} \right\}$$

30

Subject:

Year: Month: Day: ()

Page: ()

$$x - \sqrt{3}y = 1 \rightarrow y = \frac{1}{\sqrt{3}}x - \frac{1}{\sqrt{3}} = d_1 \Rightarrow d_1 = -\sqrt{3}x + b \xrightarrow{-\frac{1}{\sqrt{3}}} 0 = -1 + b \Rightarrow b = 1$$

$$d_1 = -\sqrt{3}x + 1$$

$$\frac{1}{\sqrt{3}}x - \frac{1}{\sqrt{3}} = -\sqrt{3}x + 1 \rightarrow \frac{1}{\sqrt{3}}x = \frac{4}{\sqrt{3}} \rightarrow x = 4$$

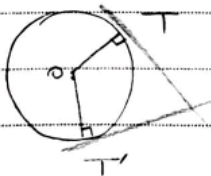
$$y = 0.9$$

5. $d_1 \xrightarrow{y=0} \frac{1}{\sqrt{3}}x = \frac{1}{\sqrt{3}} \Rightarrow x = 1 \rightarrow C = (1, 0)$
 $\rightarrow A = (4, 0) \rightarrow AC = \sqrt{9+0} = 3$
 $BH = \frac{1}{1} = 1$ } $\frac{3 \cdot 1}{3} = \frac{1}{3}$

$$m = \frac{\Delta y}{\Delta x} = \sqrt{3} = \frac{b-a}{\frac{1}{4}} \Rightarrow b-a = \frac{\sqrt{3}}{4} \rightarrow A = (-\frac{1}{\sqrt{3}}, a)$$

$$B = (-\frac{1}{\sqrt{3}}, b)$$

10. $AB = \sqrt{\frac{1}{16} + \frac{3}{16}} = \frac{2}{4} = \frac{1}{2} \rightarrow \frac{1}{2} = \frac{1}{\sqrt{3}} \cdot \sqrt{3} \Rightarrow \frac{\sqrt{3}}{2} = \frac{1}{\sqrt{3}}$



15. $m_{OT} = \frac{0 - \frac{1}{\sqrt{3}}}{0 - 1} = \frac{1}{\sqrt{3}} \rightarrow m_{OT'} = -\frac{\sqrt{3}}{1}$
 $m_{OT'} \cdot m_{OT} = -1$
 $r = OT = OT' = \sqrt{1 + \frac{1}{3}} = \frac{2}{\sqrt{3}}$

$$m_{OT'} = -\frac{\sqrt{3}}{1} \Rightarrow OA' = y = -\frac{\sqrt{3}}{1}x + b \xrightarrow{0,0} y = -\frac{\sqrt{3}}{1}x$$

$$OT' = \sqrt{x^2 + \frac{3}{1}x^2} = \sqrt{\frac{4}{1}x^2} = \frac{2}{1}x = 2 \rightarrow x = \pm 1 \rightarrow T' = (1, -\sqrt{3})$$

20. $\Rightarrow T' = (-1, \sqrt{3})$

25

30