

خط L در نقطه $(-3, -4)$ بر دایره ای به مرکز مبدأ مختصات مماس است اگر خط مماس در برابری دایره دوم بر این دایره مماس باشد حاصل ضرب طول و عرض مختصات ۲ خط مماس $\sqrt{3^2 + 4^2} = 5$

$$(0, 0) \quad (-3, -4)$$

$$\frac{-4 - 0}{-3 - 0} = \frac{4}{3} \Rightarrow \frac{4}{3}$$

$$V = \frac{4}{3} \lambda$$

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$$\frac{C}{\sqrt{1 + \frac{16}{9}}} = \frac{C}{\frac{5}{3}} = \frac{3C}{5} = 5 \Rightarrow C = \frac{25}{3}$$

$$V = \frac{4}{3} \lambda + \frac{25}{3}$$

$$V + 4 = \frac{-3}{5}(\lambda + 3)$$

$$V = -\frac{3}{5} \lambda - \frac{25}{5}$$

$$\frac{4}{3} \lambda + \frac{25}{3} = -\frac{3}{5} \lambda - \frac{25}{5}$$

$$\times 15 \quad 20\lambda = -175$$

$$\lambda = -\frac{175}{20}$$

$$V = -1 \Rightarrow \frac{V}{1}$$

$$\frac{1}{4} \lambda \left| \begin{array}{cc|c} 3, V & 0, 9 & 1 \\ 4 & 0 & 1 \\ 1 & 0 & 1 \end{array} \right| \quad 3, V(0, 0) = 0, 9(4 - 1) + (0 - 0)$$

$$-\frac{2, V}{4} \Rightarrow \frac{2, V}{4} \Rightarrow \frac{1, 25}{2}$$

ادامه

$A(-2, k) \quad a = \frac{1}{r}$ در مربع ABCD $\sqrt{9+36} = \sqrt{45} = 3\sqrt{5}$

$B(4, m)$
 $\frac{m-k}{4-(-2)} = -\frac{1}{r} \Rightarrow -\frac{1}{r} = \frac{1}{-2} \Rightarrow m-k = -2$

$A(-1, 4) \quad C(3, 0) \quad C, P$ $-1+m = 3-1 \Rightarrow m=4$ $4m=2 \Rightarrow m=\frac{1}{2}$ $\Rightarrow \left(\frac{5}{r} + \frac{1}{r}\right) = \frac{1}{2}$

$AB \Rightarrow \sqrt{4^2+3^2} = 5$
 $\frac{4-1}{-1-3} = -\frac{r}{4} \Rightarrow \frac{3}{-4} = -\frac{r}{4} \Rightarrow r=3$ $\Rightarrow \sqrt{\frac{9}{r^2} + \left(\frac{1}{r}\right)^2} = \frac{5}{r}$

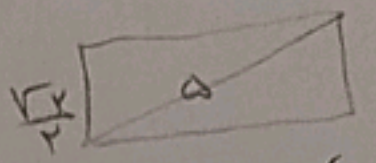
$2ma + (m^2-1)y = 2$ مربعی و مربعی
 $(m^2-1)y = 2 - 2ma = \sqrt{3}$ از دو طرف تقسیم

$\frac{-2m}{m^2-1} = \frac{\sqrt{3}}{m^2-1} \Rightarrow \sqrt{3}m^2 - 2m - \sqrt{3} > 0 \Rightarrow \frac{2 \pm \sqrt{4+12}}{2\sqrt{3}} = \frac{2 \pm 4}{2\sqrt{3}} = \frac{6}{2\sqrt{3}} = \sqrt{3}$ یا $\frac{-2}{2\sqrt{3}} = -\frac{1}{\sqrt{3}} \Rightarrow -\frac{\sqrt{3}}{3}$

آنرا در $A(1, 4)$
 $B(3, 2)$
 $C(4, 1)$ $\Rightarrow \frac{1-4}{1-3} = \frac{4-2}{3-4} = 1$ $\Rightarrow \frac{4-2+3}{1-3+4} = \frac{5}{2}$ $\Rightarrow \frac{10}{\sqrt{5}} = \frac{2\sqrt{5}}{1}$

$AB = 2, AC = 2, BC = 2$
 $AC = \sqrt{4+1} = \sqrt{5}$
 $BC = \sqrt{1+1} = \sqrt{2}$
 $(0, -4)$
 $(-\frac{3}{4}, 0) \Rightarrow \frac{-4 \cdot 0}{0+3} = -1$
 $-1m - 4 = m \Rightarrow -9m = 4 \Rightarrow m = -\frac{4}{9}$

$V = a, a = 1$
 $aV = a = 1$
 $V = \frac{a}{a} = 1$
 $\frac{1}{\sqrt{2}} = \frac{1}{\sqrt{2}} \Rightarrow \frac{\sqrt{2}}{\sqrt{2}} = \frac{\sqrt{2}}{\sqrt{2}}$



$A(4, 0)$ در مربع $\frac{1}{r} = \frac{1}{r}$ $\frac{1}{\sqrt{2}} = \frac{1}{\sqrt{2}}$ $\frac{1}{\sqrt{2}} = \frac{1}{\sqrt{2}}$

$3V = a - 1 \Rightarrow V = \frac{a}{3} - \frac{1}{3} \Rightarrow \frac{a}{3} = \frac{1}{3} \Rightarrow a = 1$ $\Rightarrow -3(a-4) = -3a+12 = \frac{1}{3}a - \frac{1}{3}$ $\Rightarrow 3, 2, 1, 0, 9$

$\frac{b-a}{-\frac{1}{3} + \frac{1}{3}} = \frac{4(b-a)}{0} = \sqrt{3}$ $\left(\sqrt{\left(\frac{1}{r}\right)^2 + \left(\frac{\sqrt{3}}{r}\right)^2}\right) = \frac{3+1}{\sqrt{3}} = \frac{4}{\sqrt{3}} \Rightarrow \frac{a^2}{r} = 2 \Rightarrow 4a^2 = \frac{4}{\sqrt{3}} \Rightarrow \frac{a^2}{\sqrt{3}} = \frac{1}{\sqrt{3}}$