

$$\frac{100+60}{100} \cdot x = 1.6x$$

60% - ,
4,032 4
4 · 1.6x = 4032 :

$$4 \cdot 1.6x = 4032$$

$$6.4x = 4032 \quad / : 6.4$$

$$\boxed{x = 630}$$

630 :

$$22 - y$$

() 22
1.6 · 630 = 1008

()		()	
1008y	y	1008	
630(22 - y)	22 - y	630	

17,262

$$1008y + 630(22 - y) = 17262 :$$

$$1008y + 630(22 - y) = 17262$$

$$1008y + 13860 - 630y = 17262$$

$$378y = 3402 \quad / : 378$$

$$\boxed{y = 9} \rightarrow \boxed{22 - y = 13}$$

13 - , 9 :

$m_{BA} = \frac{1}{3}$, $y = \frac{1}{3}x$ BA .

$m_{AC} \cdot m_{BA} = -1$: , $\angle BAC = 90^\circ$

$m_{AC} \cdot \frac{1}{3} = -1 \rightarrow m_{AC} = -3$ () AC

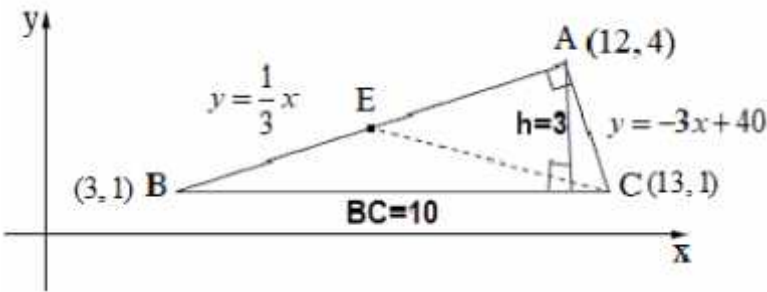
(-3) , $A(12,4)$ AC

$y - 4 = -3(x - 12)$

$y - 4 = -3x + 36$

$y = -3x + 40$

$y = -3x + 40$ AC :



$x = 3$ B $x =$ (1) .

$B(3,1)$, $y = \frac{1}{3} \cdot 3 = 1$: BA $x_B = 3$

$y_B = 1$:

$y_C = y_B = 1$, $x =$ BC (2)

: AC $y_B = 1$

$1 = -3x + 40$

$3x = 39 \quad /:3$

$x = 13$

$C(13,1)$

$C(13,1)$:

ΔABC - BA CE , BA E .

ΔABC

$h = 4 - 1 = 3$, $BC = 13 - 3 = 10$

$S_{\Delta ABC} = \frac{BC \cdot h}{2} = \frac{10 \cdot 3}{2} = 15$

$S_{\Delta EAC} = \frac{15}{2} = 7.5$ -

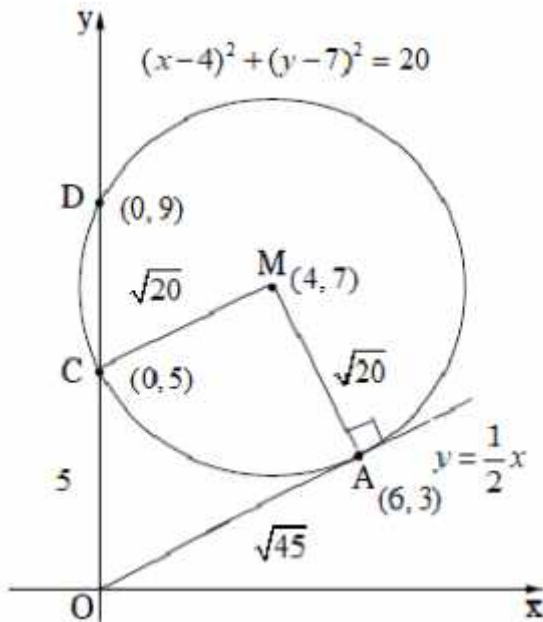
" 7.5 EAC :

"

• $M(4, 7)$

, $(x-4)^2 + (y-7)^2 = R^2$

• $A(6, 3)$ (1)



$(6-4)^2 + (3-7)^2 = R^2$

$4+16 = R^2$

$20 = R^2$

$R = \sqrt{20}$

• $\sqrt{20}$

:

• $(x-4)^2 + (y-7)^2 = 20$ (2)

• $x=0$

$y -$

$x=0$

$(0-4)^2 + (y-7)^2 = 20$

$16 + (y-7)^2 = 20$

$(y-7)^2 = 4$

$y-7 = 2 \rightarrow y = 9 \rightarrow \boxed{D(0, 9)}$

$y-7 = -2 \rightarrow y = 5 \rightarrow \boxed{C(0, 5)}$

• $D(0, 9)$, $C(0, 5)$:

• $m_{AM} = \frac{3-7}{6-4} = \frac{-4}{2} = -2$ (1)

• $m_{\text{mashik}} \cdot m_{AM} = -1$,

• $m_{\text{mashik}} \cdot (-2) = -1 \rightarrow \boxed{m_{\text{mashik}} = \frac{1}{2}}$ ()

• $\frac{1}{2}$

:

$$\cdot \frac{1}{2}, A(6,3) \quad (2)$$

$$y-3 = \frac{1}{2}(x-6)$$

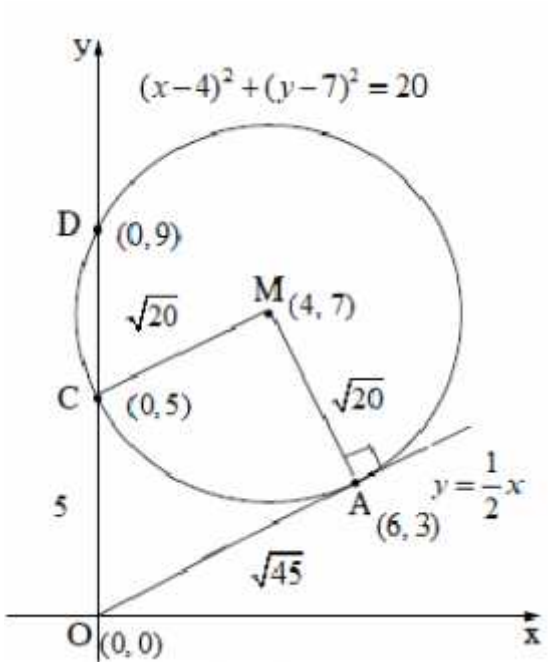
$$y-3 = \frac{1}{2}x-3$$

$$\boxed{y = \frac{1}{2}x}$$

$$\cdot y = \frac{1}{2}x \quad :$$

$$\cdot y = \frac{1}{2} \cdot 0 = 0 \text{ o.k.} \quad x = 0 \quad (3)$$

$$\cdot (0,0) \quad :$$



. AMCO .

$$AM = MC = R = \sqrt{20}$$

$$OC = 5 - 0 = 5$$

$$AO = \sqrt{(6-0)^2 + (3-0)^2} = \sqrt{45}$$

$$\cdot \sqrt{20} + \sqrt{20} + 5 + \sqrt{45} = 20.65 \quad :$$

$$\cdot 20.65 \quad \text{AMCO} \quad :$$

$$f(x) = 3\sqrt{x}$$

$$x \geq 0$$

$$x \geq 0$$

$$4 \quad x -$$

$$f'(x) = \frac{3}{2\sqrt{x}} \quad (1)$$

$$m = f'(4) = \frac{3}{2\sqrt{4}} = \frac{3}{4} :$$

$$\frac{3}{4} :$$

$$f(4) = 3\sqrt{4} = 6 \rightarrow (4, 6) \quad (2)$$

$$y - 6 = \frac{3}{4}(x - 4)$$

$$y - 6 = \frac{3}{4}x - 3$$

$$\boxed{y = \frac{3}{4}x + 3}$$

$$y = \frac{3}{4}x + 3$$

(1).

$$f'(x) = \frac{3}{2\sqrt{x}}$$

$$\frac{3}{2\sqrt{x}} = 0 \quad / \cdot 2\sqrt{x}$$

$$3 = 0$$

$$x \geq 0$$

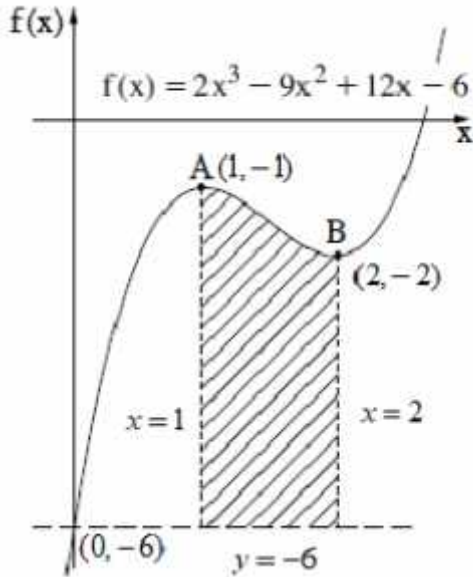
(2)

$$- f'(4) = \frac{3}{4} > 0, x = 4$$

$$x \geq 0$$

$$x : , x \geq 0 :$$

"



$f(x) = 2x^3 - 9x^2 + 12x - 6 \quad x = 0$

$f(0) = 2 \cdot 0^3 - 9 \cdot 0^2 + 12 \cdot 0 - 6 = -6 \rightarrow (0, -6)$

$y = -6$

$f'(x) = 6x^2 - 18x + 12$

$0 = 6x^2 - 18x + 12$

$x_{1,2} = \frac{-(-18) \pm \sqrt{18^2 - 4 \cdot 6 \cdot 12}}{2 \cdot 6}$

$x_{1,2} = \frac{18 \pm \sqrt{36}}{12}$

$x_{1,2} = \frac{18 \pm 6}{12}$

$x_1 = \frac{18+6}{12} = \frac{24}{12} = 2 \rightarrow f(2) = 2 \cdot 2^3 - 9 \cdot 2^2 + 12 \cdot 2 - 6 = -2 \rightarrow \boxed{B(2, -2)}$

$x_2 = \frac{18-6}{12} = \frac{12}{12} = 1 \rightarrow f(1) = 2 \cdot 1^3 - 9 \cdot 1^2 + 12 \cdot 1 - 6 = -1 \rightarrow \boxed{A(1, -1)}$

$B(2, -2), A(1, -1)$

$2x^3 - 9x^2 + 12x - 6 - (-6) = 2x^3 - 9x^2 + 12x - 6 + 6 = 2x^3 - 9x^2 + 12x$

S	
$f(x) = 2x^3 - 9x^2 + 12x - 6$	
$y = -6$	
$x = 2$	() x
$x = 1$	() x

$S = \int_1^2 (2x^3 - 9x^2 + 12x) dx$

$S = \left[\frac{2x^4}{4} - \frac{9x^3}{3} + \frac{12x^2}{2} \right]_1^2$

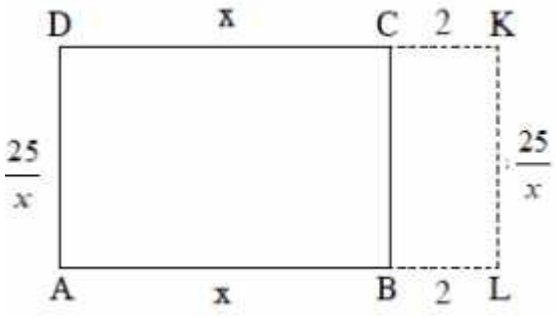
$x = 2 \quad \frac{2 \cdot 2^4}{4} - \frac{9 \cdot 2^3}{3} + \frac{12 \cdot 2^2}{2} = 8$

$x = 1 \quad \frac{2 \cdot 1^4}{4} - \frac{9 \cdot 1^3}{3} + \frac{12 \cdot 1^2}{2} = 3.5$

$S = 8 - (3.5)$

$\boxed{S = 4.5}$

" 4.5 :



. 25 , ABCD
 . AB = x
 $S_{ABCD} = AB \cdot AD$
 $25 = x \cdot AD \quad /: x$
 $\boxed{\frac{25}{x} = AD}$
 . AD = $\frac{25}{x}$:

. ALKD x (1)
 , x + 2
 $\cdot \frac{25}{x}$

. $2(x+2) + 2 \cdot \frac{25}{x} = 2x + 4 + \frac{50}{x}$:
 . $2x + 4 + \frac{50}{x}$ ALKD :

. ALKD **پلن'پلن** (2)

$f(x) = 2x + 4 + \frac{50}{x}$

$\boxed{f'(x) = 2 - \frac{50}{x^2}}$

$0 = 2 - \frac{50}{x^2} \quad / \cdot x^2$

$0 = 2x^2 - 50$

$50 = 2x^2 \quad /: 2$

$25 = x^2$

$\boxed{x = 5} \quad \leftarrow x > 0$

$f'(4) = 2 - \frac{50}{4^2} < 0, \quad f'(6) = 2 - \frac{50}{6^2} > 0 \quad .(x > 0)$

0	4	5	6	x
	-	0	+	y'
	↘	Min	↗	

. ALKD , AB = 5 :

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