

20% , 3 -
20% , (x-3)

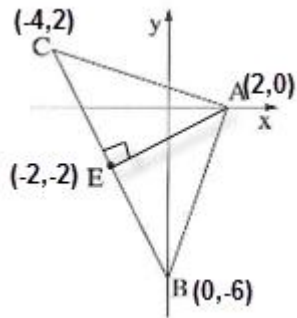
()	()	()	
2400	$\frac{2400}{x}$	x	
$3 \cdot \frac{1920}{x} = \frac{5760}{x}$	$(\frac{100-20}{100}) \cdot \frac{2400}{x} = 0.8 \cdot \frac{2400}{x} = \frac{1920}{x}$	3	20%
$(x-3) \cdot \frac{2880}{x} = \frac{2880(x-3)}{x}$	$(\frac{100+20}{100}) \cdot \frac{2400}{x} = 1.2 \cdot \frac{2400}{x} = \frac{2880}{x}$	x-3	20%

2736
 $\frac{5760}{x} + \frac{2880(x-3)}{x} = 2736$:

$\frac{5760}{x} + \frac{2880(x-3)}{x} = 2736 \quad / \cdot x$
 $5760 + 2880(x-3) = 2736x$
 $5760 + 2880x - 8640 = 2736x$
 $-2880 + 2880x = 2736x$
 $144x = 2880 \quad / :144$
 $x = 20$

20
 $\frac{2400}{20} = 120$
 120 :
 20 : .

"



. BC

E(-2,-2)

$$-2 = \frac{2 + y_B}{2} \quad / \cdot 2$$

$$-2 = \frac{-4 + x_B}{2} \quad / \cdot 2$$

$$-4 = 2 + y_B$$

$$-4 = -4 + x_B$$

$$y_B = -6$$

$$x_B = 0$$

. B(0,-6) :

.3 AB

. B(0,-6) , $m_{AB} = 3$: , AB

$$y - (-6) = 3(x - 0)$$

$$y + 6 = 3x$$

$$y = 3x - 6$$

. $y_A = 0$, x -

A

$$0 = 3x - 6$$

$$-3x = -6$$

$$x = 2$$

. A(2,0) :

. BC

AE

$$m_{AE} = \frac{0 - (-2)}{2 - (-2)} = \frac{2}{4} = \frac{1}{2}$$

$$m_{BC} = \frac{-6 - 2}{0 - (-4)} = \frac{-8}{4} = -2$$

$$m_{AE} \cdot m_{BC} = \frac{1}{2} \cdot (-2) = -1$$

. ABE

$$d_{AE} = \sqrt{(2 - (-2))^2 + (0 - (-2))^2} = \sqrt{20} \approx 4.472$$

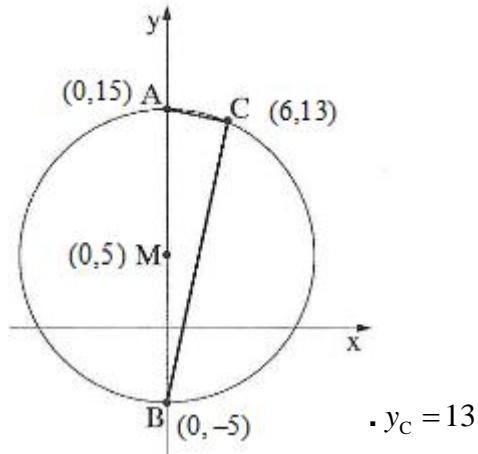
$$d_{BE} = \sqrt{(0 - (-2))^2 + (-6 - (-2))^2} = \sqrt{20} \approx 4.472$$

$$S_{\triangle ABE} = \frac{AE \cdot BC}{2} = \frac{\sqrt{20} \cdot \sqrt{20}}{2} = 10$$

$$S_{\triangle ABE} = \frac{4.472 \cdot 4.472}{2} = 10 :$$

. " 10 ABE :

"



• $B - A$ $y -$ $x^2 + (y-5)^2 = 100$ •

• $x = 0$

$0^2 + (y-5)^2 = 100$

$(y-5)^2 = 100$

$y-5 = 10 \rightarrow y = 15 \rightarrow \boxed{A(0,15)}$

$y-5 = -10 \rightarrow y = -5 \rightarrow \boxed{B(0,-5)}$

• $B(0,-5)$, $A(0,15)$:

• $y_C = 13$ C •

• $y = 13$

$x^2 + (13-5)^2 = 100$

$x^2 + 64 = 100$

$x^2 = 36$

$x = 6 \rightarrow \boxed{C(6,13)}$

~~$x = -6$~~ ← $x > 0$

• C

• $C(6,13)$:

• $M(0,5)$ •

• AB

• CB

• $AB > CB$,

• AB :

.C(6,13)

$$m_{MC} = \frac{13-5}{6-0} = \frac{8}{6} = \frac{4}{3} : \quad MC$$

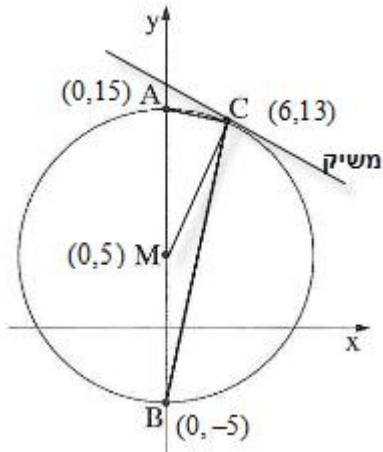
.() $-\frac{3}{4}$, ,

$$. C(6,13) , m_{\text{mashik}} = -\frac{3}{4}$$

$$y-13 = -\frac{3}{4}(x-6)$$

$$y-13 = -\frac{3}{4}x + 4.5$$

$$\boxed{y = -\frac{3}{4}x + 17.5}$$



. $y = -\frac{3}{4}x + 17.5$, C , :

$$f(x) = 6x - 12\sqrt{x}$$

$$x \geq 0$$

$$x \geq 0$$

$$f'(x) = 6 - \frac{6}{\sqrt{x}}$$

$$0 = 6 - \frac{6}{\sqrt{x}} \quad | \cdot \sqrt{x}$$

$$0 = 6\sqrt{x} - 6$$

$$6 = 6\sqrt{x} \quad | :6$$

$$1 = \sqrt{x}$$

$$\boxed{x=1} \rightarrow f(1) = 6 \cdot 1 - 12\sqrt{1} = -6 \rightarrow \boxed{(1, -6)}$$

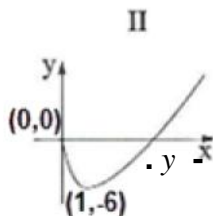
$$f'(0.5) = 6 - \frac{6}{\sqrt{0.5}} < 0, \quad f'(2) = 6 - \frac{6}{\sqrt{2}} > 0$$

0	0.5	1	2	x
	-	0	+	f'(x)
	↘	Min	↗	

(1, -6) :

$$(0, 0), \quad f(0) = 6 \cdot 0 - 12\sqrt{0} = 0 \quad : y$$

(0, 0) :



II

II :

$$y = -6$$

$$(1, -6)$$

$$(-7) \quad y$$

$$y = -7$$

$$y = -7 \quad :$$

"

$$f(x) = x^2$$

.I

$$g(x) = 2x - 3$$

. II

$$f(x) = x^2 - I, g(x) = 2x - 3 - II :$$

.AB **אינ'אום אורק הקטע** .

$$.x - B - A$$

$$(y - AB) x -$$

$$. B(x, 2x-3) - A(x, x^2) :$$

$$AB = x^2 - (2x - 3)$$

$$\boxed{AB = x^2 - 2x + 3}$$

$$\boxed{(AB)' = 2x - 2}$$

$$0 = 2x - 2$$

$$-2x = -2 \quad /: (-2)$$

$$\boxed{x = 1}$$

$$(AB)'(0.5) = 2 \cdot 0.5 - 2 = -1 < 0, \quad (AB)'(2) = 2 \cdot 2 - 2 = 2 > 0$$

0.5	1	2	x
-	0	+	(AB)'
↘	Min	↗	

$$. AB, x_A = x_B = 1 :$$

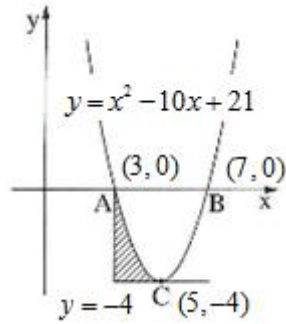
.B - A

x -

$$y = x^2 - 10x + 21$$

$$y = 0$$

x -



$$x^2 - 10x + 21 = 0$$

$$x_{1,2} = \frac{-(-10) \pm \sqrt{(-10)^2 - 4 \cdot 1 \cdot 21}}{2 \cdot 1}$$

$$x_{1,2} = \frac{10 \pm 4}{2}$$

$$x_1 = \frac{10 + 4}{2} = \frac{14}{2} = 7 \rightarrow \boxed{B(7, 0)}$$

$$x_2 = \frac{10 - 4}{2} = \frac{6}{2} = 3 \rightarrow \boxed{A(3, 0)}$$

.B(7, 0) , A(3, 0) :

. C

,

(1) .

$$y' = 2x - 10$$

$$0 = 2x - 10$$

$$-2x = -10 \quad / : (-2)$$

$$x = 5 \rightarrow y = 5^2 - 10 \cdot 5 + 21 = -4 \rightarrow \boxed{C(5, -4)}$$

.C(5, -4) :

$$y = -4$$

,

,

(2)

$$y = -4$$

:

$$S = \int_3^5 (x^2 - 10x + 21 - (-4)) dx$$

$$S = \int_3^5 (x^2 - 10x + 25) dx$$

$$S = \left[\frac{x^3}{3} - \frac{10x^2}{2} + 25x \right]_3^5$$

$$S = \left(\frac{5^3}{3} - \frac{10 \cdot 5^2}{2} + 25 \cdot 5 \right) - \left(\frac{3^3}{3} - \frac{10 \cdot 3^2}{2} + 25 \cdot 3 \right)$$

$$S = 41 \frac{2}{3} - (39)$$

$$\boxed{S = 2 \frac{2}{3}}$$

. " $2 \frac{2}{3}$

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