

$$y = -x^2 - 2x + 3$$

$$y = 0 \quad x =$$

$$0 = -x^2 - 2x + 3$$

$$x_{1,2} = \frac{-(-2) \pm \sqrt{(-2)^2 - 4 \cdot (-1) \cdot 3}}{2 \cdot (-1)}$$

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

$$x_1 = \frac{2+4}{-2} = \frac{6}{-2} = -3 \rightarrow \boxed{A(-3, 0)}$$

$$x_2 = \frac{2-4}{-2} = \frac{-2}{-2} = 1 \rightarrow \boxed{B(1, 0)}$$

B(1, 0), A(-3, 0) :

A(-3, 0) -

B(1, 0) -

$$x < -3 \quad x > 1 :$$

$$x_{\text{kodkod}} = -\frac{b}{2a}$$

C $x =$

C(-1, 4)

$$y_C = -(-1)^2 - 2 \cdot (-1) + 3 = 4 \quad x_C = -\frac{-2}{2 \cdot (-1)} = -\frac{-2}{-2} = -1 ,$$

C(-1, 4) :

ACO

$$OA = 0 - x_A = 0 - (-3) = 3$$

$$h_{OA} = y_C - 0 = 4 - 0 = 4$$

$$S_{\Delta ACO} = \frac{OA \cdot h}{2} = \frac{3 \cdot 4}{2} = 6$$

" 6 ACO :

(1)

$$a_1 = 11, \quad a_2 = 8, \quad a_3 = 5 :$$

$$a_2 - a_1 = 8 - 11 = -3 : \quad (2)$$

$$-3 :$$

$$a_n = -13 .$$

$$a_n = a_1 + (n-1)d :$$

$$-13 = 11 + (n-1) \cdot (-3)$$

$$-24 = -3(n-1)$$

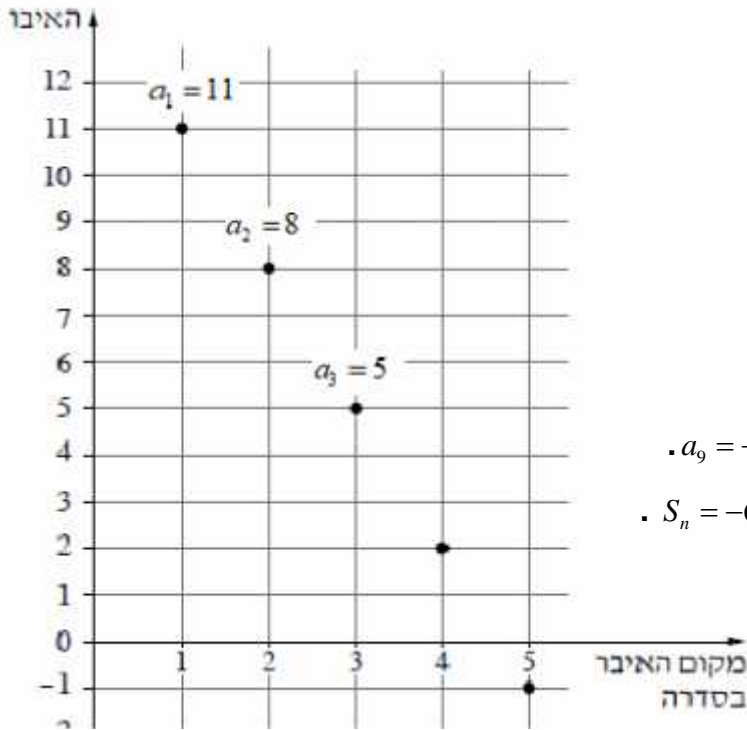
$$-24 = -3n + 3$$

$$3n = 27 \quad /:3$$

$$\boxed{n=9}$$

$$a_9 = -13 ,$$

$$S_n = -66, \quad -66$$



$$S_n = \frac{n[2a_1 + d(n-1)]}{2}$$

$$-66 = \frac{n[2 \cdot 11 - 3 \cdot (n-1)]}{2} \quad / \cdot 2$$

$$-132 = n(22 - 3n + 3)$$

$$-132 = n(25 - 3n)$$

$$-132 = 25n - 3n^2$$

$$3n^2 - 25n - 132 = 0$$

$$n_{1,2} = \frac{-(-25) \pm \sqrt{(-25)^2 - 4 \cdot 3 \cdot (-132)}}{2 \cdot 3}$$

$$n_{1,2} = \frac{25 \pm 47}{6}$$

$$n_1 = \frac{25 + 47}{6} = \frac{72}{6} = 12$$

$$n_2 = \frac{25 - 47}{6} = \frac{-22}{6} = -\frac{11}{3} \quad \leftarrow n > 0, \text{ natural}$$

$$-66 \quad 12 :$$

$$M_t = M_0 \cdot q^t$$

$q = \frac{100+P}{100}$: , () P
 .t .q ()
 t - M_t , - M_0

.1/1/2021 , 2 (1) .

$$q = \frac{100+3}{100} = \frac{103}{100} = 1.03$$

M_t	M_0	q	t
?	8,000	1.03	2

$$M_2 = 8000 \cdot 1.03^2$$

$$M_2 = 8487.2$$

. 8,487.2 , , :
 . 9,000 - , , (2)

$$M_3 = 8,000 \cdot 1.03^3 \approx 8741$$

$$M_4 = 8,000 \cdot 1.03^4 \approx 9004$$

. 9,000 - ,1/1/2023 - , 4 :

. 2

M_t	M_0	q	t
6,615	6,000	?	2

1/1/2021 1/1/2019 -

$$6615 = 6000 \cdot q^2 \quad /: 6000$$

$$\frac{6615}{6000} = q^2$$

$$1.1025 = q^2$$

$$q = \sqrt[2]{1.1025}$$

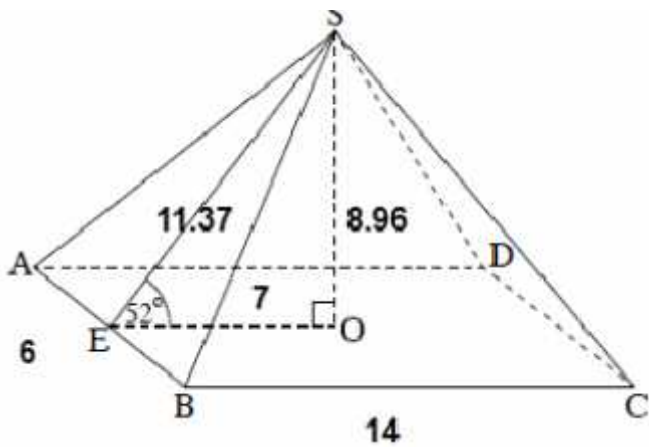
$$q = 1.05$$

$$1.05 = \frac{100+P}{100} \quad / \cdot 100$$

$$105 = 100 + P$$

$$P = 5\%$$

.5% - :



.SO

O,

$$EO = \frac{BC}{2} = \frac{14}{2} = 7$$

ΔSEO

$$\tan \angle SEO = \frac{SO}{EO}$$

$$\tan 52^\circ = \frac{SO}{7}$$

$$7 \tan 52^\circ = SO$$

$$SO = 8.96$$

. " 8.96

:

.SE

,SAB

ΔSEO

$$\cos \angle SEO = \frac{EO}{SE}$$

$$\cos 52^\circ = \frac{7}{SE}$$

$$SE = \frac{7}{\cos 52^\circ}$$

$$SE = 11.37$$

. " 11.37

SAB

:

.SE

AB

SAB

$$S_{\Delta SAB} = \frac{AB \cdot SE}{2} = \frac{6 \cdot 11.37}{2} = 34.11$$

. " 34.11

SAB

:

"	80	70	60	- x
N = 16	5	8	3	- f

$$\bar{x} = \frac{60 \cdot 3 + 70 \cdot 8 + 80 \cdot 5}{16} = \frac{1140}{16} = 71.25$$

.71.25 :

"	80	70	60	- x
N = 16	5	8	3	- f
	12-16	4-11	1-3	

$$\frac{16+1}{2} = \frac{17}{2} = 8.5$$

, (16)

.70

.70

$$\frac{70+70}{2} = \frac{140}{2} = 70$$

.70 :

,80

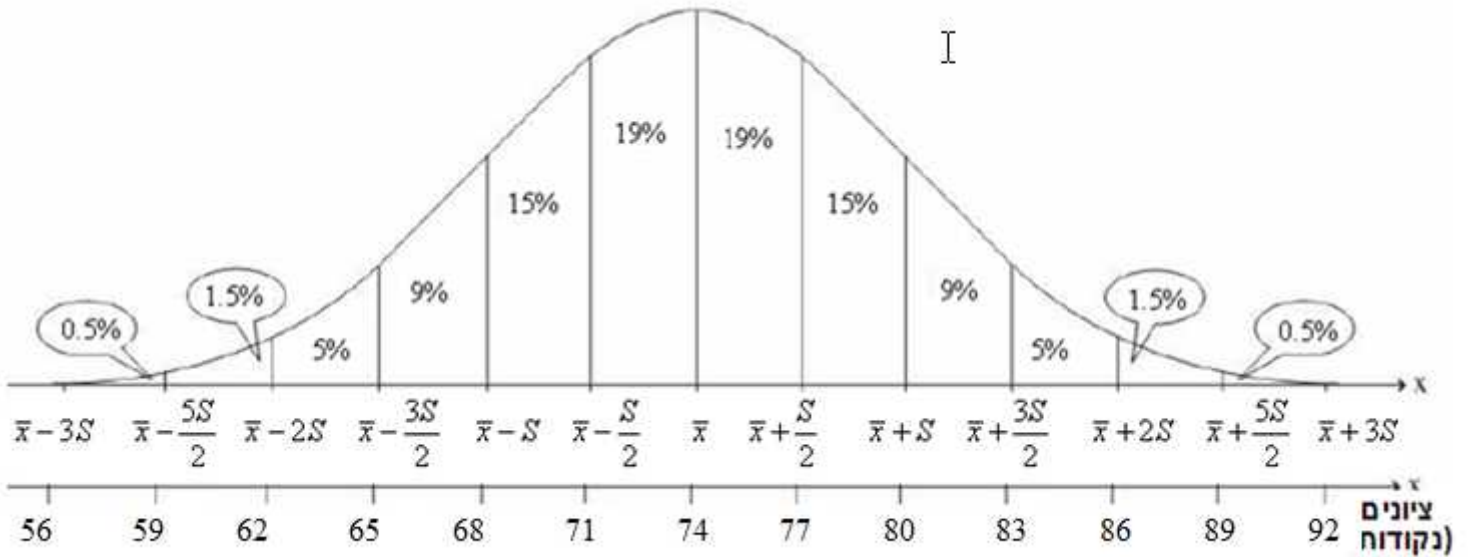
, 6

,71.25 ,

:

$\bar{x} = 74$ $s = 6$

() .
 $\frac{6}{2} = 3$ 6



,0.5% + 1.5% + 5% + 9% = 16% 68 -

. 68 - 16% :

.86 -

.1.5% + 0.5% = 2% :

. 2% :

. 65 -

420 .

.65 -

7%

,0.5% + 1.5% + 5% = 7% :

. $\frac{7}{100} = 0.07$

,65 -

7%

.420 (n)

(0.07)

$0.07 \cdot n = 420 \quad / : 0.07$

$n = 6000$

. 6,000 :