

$y = -x^2 + x + 6$

$y = 0$ $x =$

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

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

$$x_{1,2} = \frac{-1 \pm 5}{2 \cdot (-1)}$$

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

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

$A(-2, 0)$, $B(3, 0)$:

$x < -2$ $x > 3$,

$x < -2$ $x > 3$,

C ,

$$x_c = \frac{-b}{2a} = \frac{-1}{2 \cdot (-1)} = \frac{-1}{-2} = \frac{1}{2}$$

$y = -x^2 + x + 6$ $x = \frac{1}{2}$

$$y = -\left(\frac{1}{2}\right)^2 + \frac{1}{2} + 6 = 6.25$$

$\left(\frac{1}{2}, 6.25\right)$ C :

$y = 7$

$(\quad) 6.25$

:

$$\cdot 10 \quad (1)$$

$$10 - 2, 12 \quad (2)$$

.2

$$. d = 2 ,$$

2 -

$$\cdot a_1 = 10 , 10$$

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

. a_{14}

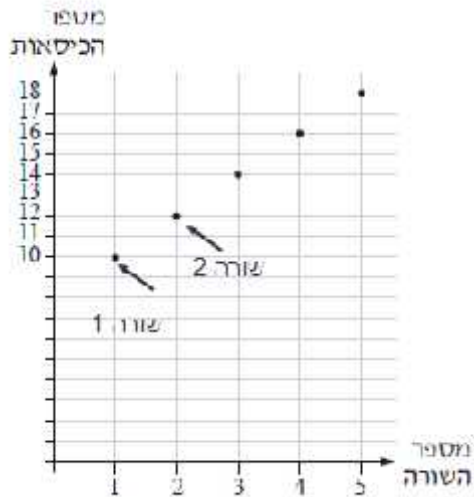
, 14 -

$$a_{14} = a_1 + (16-1)d$$

$$a_{14} = 10 + 13 \cdot 2$$

$$\boxed{a_{14} = 36}$$

. 36 14 - :



$$\cdot S_n = 400 , 400 \quad (2)$$

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

$$400 = \frac{n[2 \cdot 10 + 2 \cdot (n-1)]}{2} \quad / \cdot 2$$

$$800 = n[20 + 2 \cdot (n-1)]$$

$$800 = n(20 + 2n - 2)$$

$$800 = n(18 + 2n)$$

$$800 = 18n + 2n^2$$

$$0 = 2n^2 + 18n - 800$$

$$n_{1,2} = \frac{-18 \pm \sqrt{18^2 - 4 \cdot 2 \cdot (-800)}}{2 \cdot 2}$$

$$n_1 = \frac{-18 + 82}{4} = \frac{64}{4} = 16$$

$$n_2 = \frac{-18 - 82}{4} = \frac{-100}{4} = -25 \leftarrow n > 0$$

.16

:

150,000 -

4% -

:

$$q = \frac{100 - 4}{100} = \frac{96}{100} = 0.96$$

M_t	M_0	q	t
?	150,000	0.96	1

$$M_1 = 150000 \cdot 0.96$$

$$M_1 = 144000$$

144,000

:

3

M_t	M_0	q	t
?	150,000	0.96	3

$$M_3 = 150000 \cdot 0.96^3$$

$$M_3 \approx 132710$$

132,710 -

3

:

138,240

M_t	M_0	q	t
138,240	150,000	0.96	?

$$150000 \cdot 0.96^t = 138240$$

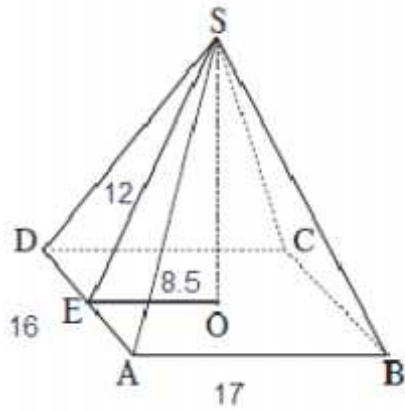
t

$$150000 \cdot 0.96^1 = 144000 \neq 138240$$

$$150000 \cdot 0.96^2 = 138240 \text{ o.k.}$$

138,240 -

() 2 :



$$OE = \frac{AB}{2} = \frac{17}{2} = 8.5$$

,SO ,

ΔSOE

$$(SE)^2 = (OE)^2 + (SO)^2$$

$$12^2 = 8.5^2 + (SO)^2$$

$$144 = 72.25 + (SO)^2$$

$$71.75 = (SO)^2$$

$$SO = 8.471$$

8.471

,BD

ΔABD

$$(BD)^2 = (AB)^2 + (AD)^2$$

$$(BD)^2 = 17^2 + 16^2$$

$$(BD)^2 = 545$$

$$BD = \sqrt{545}$$

$$BD = 23.35$$

23.35

BD

.BO

BD

$$BO = \frac{BD}{2} = \frac{23.35}{2} = 11.67$$

,SB

ΔSBO

$$(SB)^2 = (SO)^2 + (BO)^2$$

$$(SB)^2 = 8.471^2 + 11.67^2$$

$$(SB)^2 = 207.94$$

$$SB = \sqrt{207.94}$$

$$SB = 14.42$$

14.42

: \sphericalangle SBO ,

Δ SAO

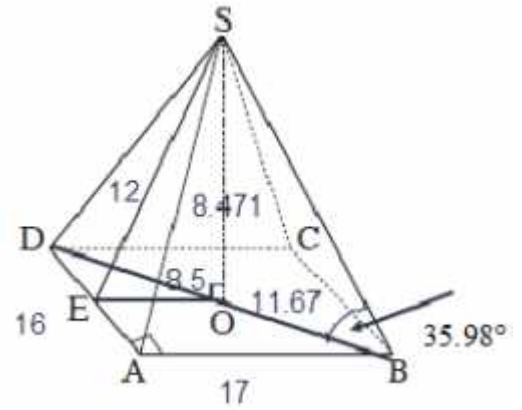
$$\tan \sphericalangle SBO = \frac{SO}{BO}$$

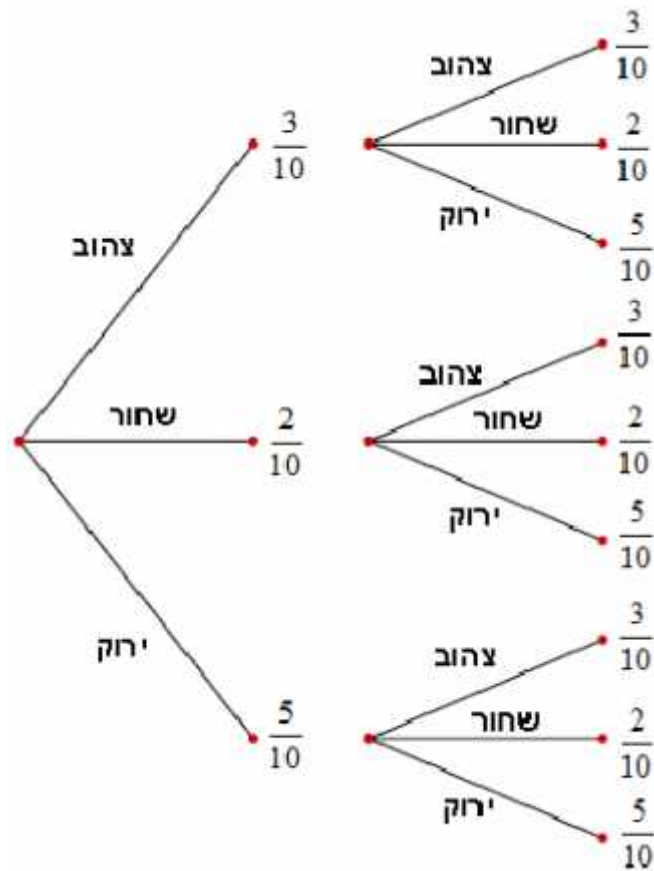
$$\tan \sphericalangle SBO = \frac{8.471}{11.67}$$

$$\sphericalangle SAO = 35.98^\circ$$

.35.98°

:





$$P = \frac{3}{10} \cdot \frac{3}{10} = 0.09$$

. 0.09

$$P = \frac{5}{10} \cdot \frac{5}{10} + \frac{2}{10} \cdot \frac{2}{10} + \frac{3}{10} \cdot \frac{3}{10} = 0.38$$

1?0.381

$$P = \frac{5}{10} \cdot \frac{2}{10} = 0.1$$

. 0.1

הקוטר של צבניות צאלות מתפלג נורמלית,

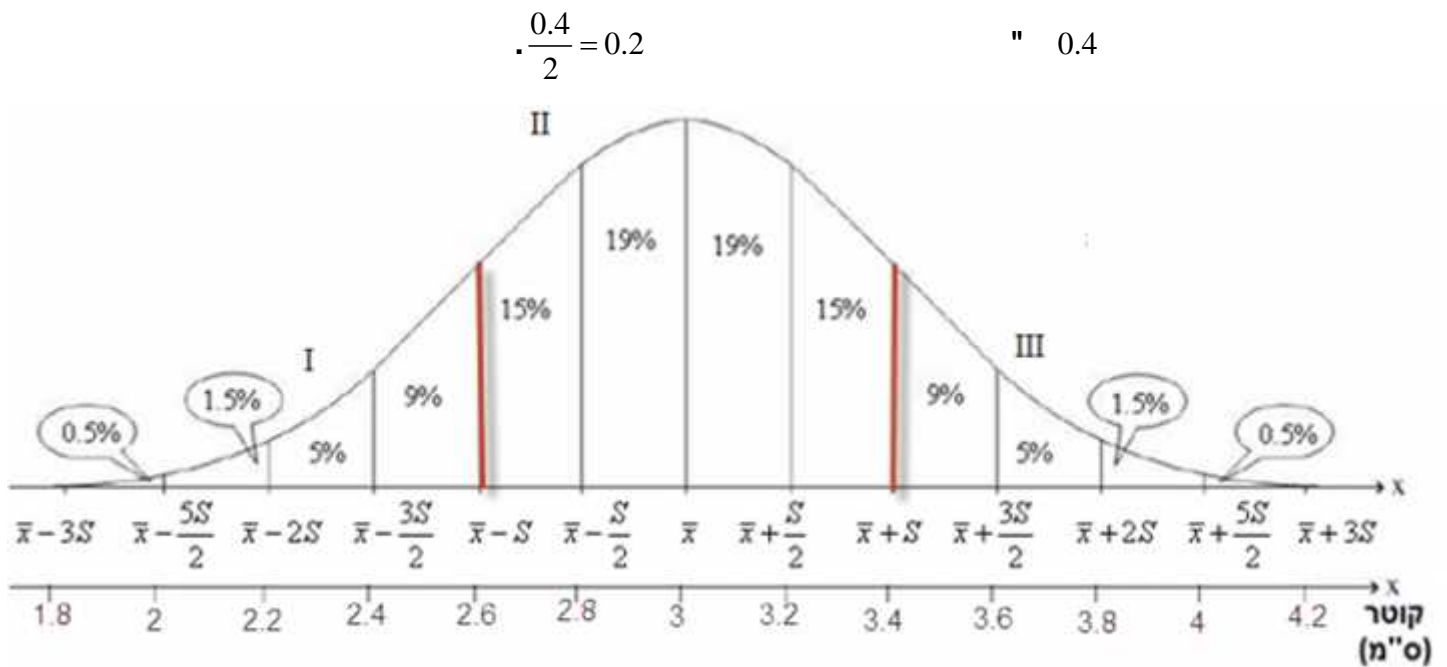
עם ממוצע של $\bar{x} = 3$ ס"מ וסטיית תקן של $s = 0.4$ ס"מ.

מחייבים את הצבניות לפלוש קבוצות:

I צבניות שקוטרן קטן מ- 2.6 ס"מ או שווה ל- 2.6 ס"מ

II צבניות שקוטרן גדול מ- 2.6 ס"מ אך קטן מ- 3.4 ס"מ

III שאר הצבניות



$$\frac{0.4}{2} = 0.2$$

" 0.4

" 2.6

$$.0.5\% + 1.5\% + 5\% + 9\% = 16\% \quad " \quad 2.6$$

" 3.4

$$.15\% + 19\% + 19\% + 15\% = 68\% \quad " \quad 3.4 - , \quad " \quad 2.6 -$$

$$. 100\% - 16\% - 68\% = 16\%$$

.16% - III , 68% - II , 16% - I :

$$.100\% - 16\% = 84\% = \frac{84}{100} = 0.84 \quad " \quad 2.6 - \quad (1)$$

$$. 0.84 - " \quad 2.6 - , , : (2)$$

$$.19\% + 15\% = 34\% = \frac{34}{100} = 0.34 :$$

. 0.34 :