

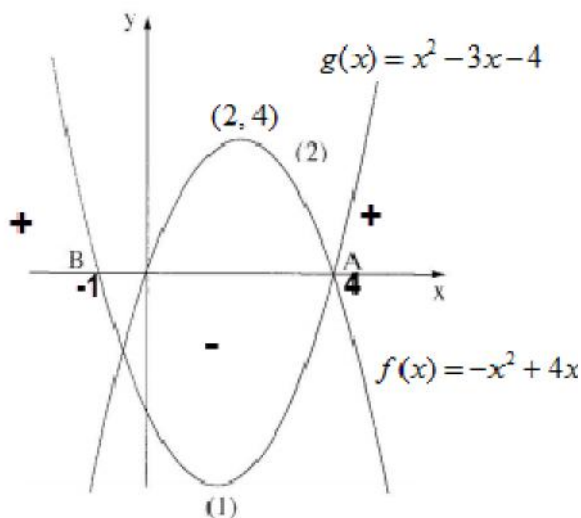
.(2) () , $a = -1$. $f(x) = -x^2 + 4x$.

.(1) () , $a = 1$. $g(x) = x^2 - 3x - 4$

. (1) - $g(x) = x^2 - 3x - 4$. (2) - $f(x) = -x^2 + 4x$:

. B - A

, $g(x) = x^2 - 3x - 4$ $y = 0$.



$$x^2 - 3x - 4 = 0$$

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

$$x_{1,2} = \frac{3 \pm 5}{2}$$

$$x_1 = \frac{3+5}{2} = \frac{8}{2} = 4 \rightarrow \boxed{A(4, 0)}$$

$$x_2 = \frac{3-5}{2} = \frac{-2}{2} = -1 \rightarrow \boxed{B(-1, 0)}$$

. $B(-1, 0)$, $A(4, 0)$:

. x -

. $g(x) = x^2 - 3x - 4$.

. $B(-1, 0)$

$A(4, 0)$

. $x < -1$ $x > 4$:

. $f(x) = -x^2 + 4x$.

$$\left. \begin{aligned} x_{\text{kodkod}} &= -\frac{b}{2a} = -\frac{4}{2 \cdot (-1)} = 2 \\ y_{\text{kodkod}} &= -(2)^2 + 4 \cdot 2 = 4 \end{aligned} \right\} \boxed{(2, 4)}$$

. $1(2, 4)$:

$$a_1 = 5000$$

$$a_4 = 8300$$

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

$$a_4 = a_1 + (4-1) \cdot d$$

$$8300 = 5000 + 3 \cdot d$$

$$3300 = 3 \cdot d \quad /:3$$

$$\boxed{d = 1100}$$

$$1,100$$

$$S_{10}$$

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

$$S_{10} = \frac{10[2 \cdot 5000 + 1100(10-1)]}{2}$$

$$S_{10} = \frac{10[10000 + 9900]}{2}$$

$$\boxed{S_{10} = 99500}$$

$$99,500$$

$$10$$

$$10$$

$$10$$

$$\frac{99500}{10} = \boxed{9950}$$

$$9,950$$

$$10$$

40,000 20
50,000

M_t	M_0	q	t
50,000	40,000	?	20

$$50000 = 40000 \cdot q^{20} \quad / : 40000$$

$$1.25 = q^{20}$$

$$q = \sqrt[20]{1.25}$$

$$\boxed{q = 1.0112}$$

$$1.0112 = \frac{100 + P}{100} \quad / \cdot 100$$

$$101.12 = 100 + P \quad / - 100$$

$$\boxed{P = 1.12\%}$$

1.12% - :

20

M_t	M_0	q	t
?	50,000	1.0112	20

$$M_{20} = 50000 \cdot 1.0112^{20}$$

$$\boxed{M_{20} = 62500}$$

62,500

20 :

5

M_t	M_0	q	t
50,000	?	1.0112	5

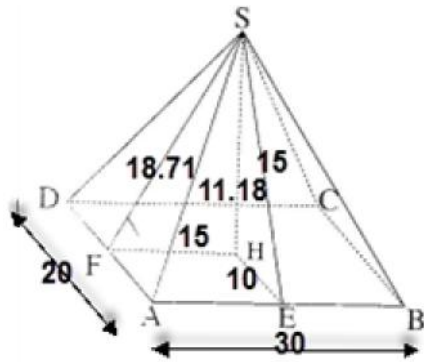
$$50000 = M_0 \cdot 1.0112^5 \quad / : 1.0112^5$$

$$\frac{50000}{1.0112^5} = M_0$$

$$\boxed{M_0 = 47,291}$$

47,291

5 :



$$FH = \frac{AB}{2} = \frac{30}{2} = 15 \quad HE = \frac{AD}{2} = \frac{20}{2} = 10$$

,SH

ΔSHE

$$(SH)^2 + (HE)^2 = (SE)^2$$

$$(SH)^2 + 10^2 = 15^2$$

$$(SH)^2 = 125 \quad / \sqrt{\quad}$$

$$SH = 11.18$$

$$SH = 11.18$$

,SDA

DA SF

ΔSHF

$$(SF)^2 = (FH)^2 + (SH)^2$$

$$(SF)^2 + 15^2 = 11.18^2$$

$$(SF)^2 = 350 \quad / \sqrt{\quad}$$

$$SF = 18.71$$

$$SF = 18.71$$

∠SFH

SF

ΔSHF

$$\tan \angle SFH = \frac{SH}{FH}$$

$$\tan \angle SFH = \frac{11.18}{15}$$

$$\angle SFH = 36.7^\circ$$

$$36.7^\circ$$

() x -
x+15 :

x+15	x	x _i
66	34	f _i

, $\bar{x} = 49.9$ -
 $.34 + 66 = 100$

$$\bar{x} = \frac{x_1 f_1 + x_2 f_2 + \dots + x_n f_n}{n}$$

$$49.9 = \frac{x \cdot 34 + (x+15) \cdot 66}{100} \quad / \cdot 100$$

$$4990 = 34x + 66x + 990$$

$$4000 = 100x \quad / : 100$$

$$\boxed{x = 40}$$

55 , 40 ,
 55 , 15
 55 , 40 :

34

66

55

55

:

55	40	x_i
66	34	f_i
100	34	

,(100)

$$\frac{100+1}{2} = \frac{101}{2} = 50.5 :$$

55

,55

51 -

50 -

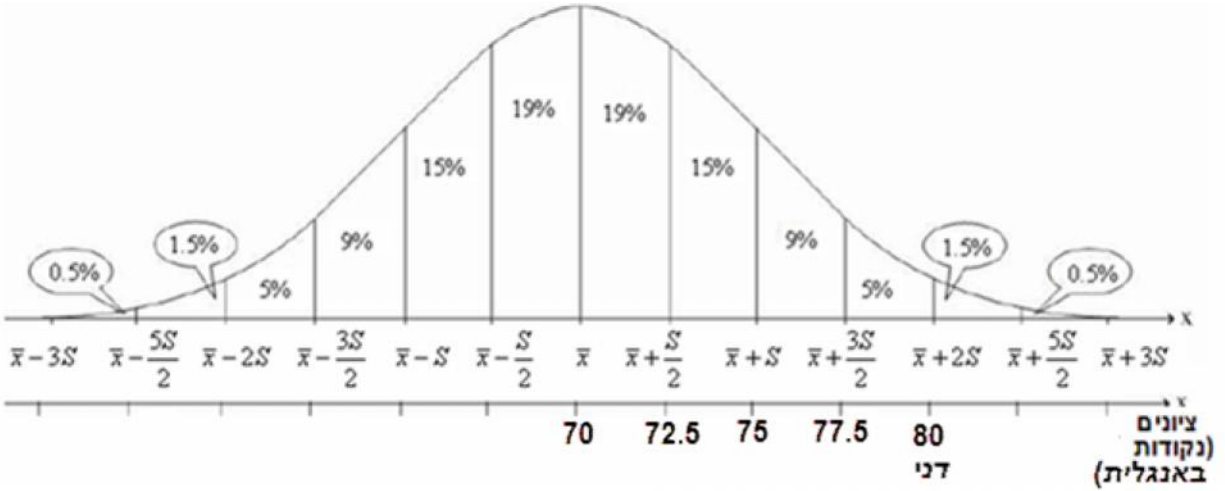
55

:

$\bar{x} = 70$ $s = 5$,

(1) .

$\frac{5}{2} = 2.5$ 5



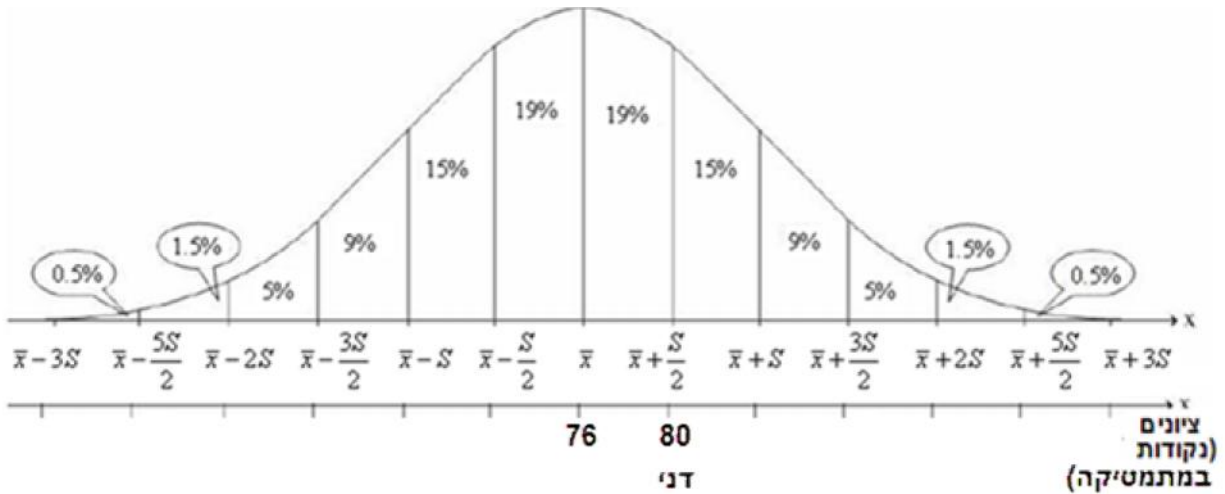
$.15\% + 0.5\% = 2\%$: **80**

80 - 2% :

$\bar{x} = 76$ $s = 8$,

(2)

$\frac{8}{2} = 4$ 8



$.15\% + 9\% + 5\% + 1.5\% + 0.5\% = 31\%$: **80**

80 - 31% :

31% - 2% ,