

$$f(x) = -x^2 - 3x + 18$$

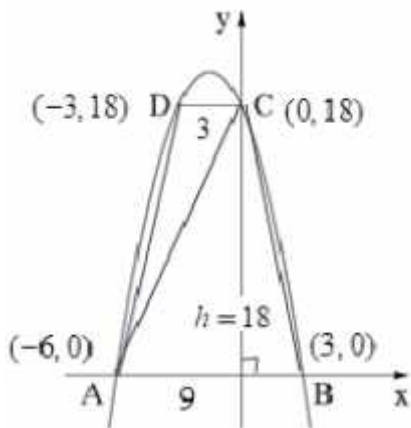
• $y = 0$

$$0 = -x^2 - 3x + 18$$

$$x_{1,2} = \frac{-(-3) \pm 9}{-2}$$

$$x_1 = \frac{3+9}{-2} = \frac{12}{-2} = -6 \rightarrow \boxed{A(-6, 0)}$$

$$x_2 = \frac{3-9}{-2} = \frac{-6}{-2} = 3 \rightarrow \boxed{B(3, 0)}$$



• $x = 0$

$y =$

$$y = -0^2 - 3 \cdot 0 + 18 = 18 ,$$

• $C(0, 18)$

$y =$

$x =$

DC

∴ $f(x) = -x^2 - 3x + 18$

$y = 18$

$$18 = -x^2 - 3x + 18$$

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

$$x(x+3) = 0$$

$$x_C = 0, x_D = -3$$

• $D(-3, 18)$

• $D(-3, 18)$, $C(0, 18)$, $B(3, 0)$, $A(-6, 0)$:

: ABC

$$S = \frac{AB \cdot h}{2}$$

$$AB = 3 - (-6) = 9$$

$$h = 18 - 0 = 18$$

$$S = \frac{9 \cdot 18}{2} = 81$$

. " 81 ABC :

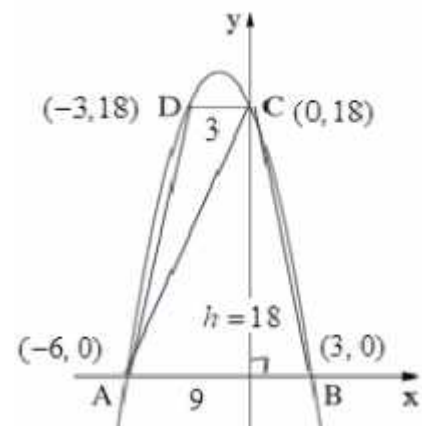
: ABCD

$$S = \frac{(AB + DC)h}{2}$$

$$DC = 0 - (-3) = 3$$

$$S = \frac{(9 + 3) \cdot 18}{2} = 108$$

. " 108 ABCD :



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

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

. 30,870 1.1.2018 - .

$$q = \frac{100+5}{100} = \frac{105}{100} = 1.05 : , 5\%$$

.1.1.2030 - , 12

M_t	M_0	q	t
?	30,870	1.05	12

$$M_{12} = 30870 \cdot 1.05^{12}$$

$$M_{12} = 55438$$

. 55,438 1.1.2030 - :

.1.1.2018 2 ,1.1.2016 - .

M_t	M_0	q	t
30,870	?	1.05	2

$$30870 = M_0 \cdot 1.05^2$$

$$\frac{30870}{1.05^2} = M_0$$

$$M_0 = 28000$$

. 28,000 :

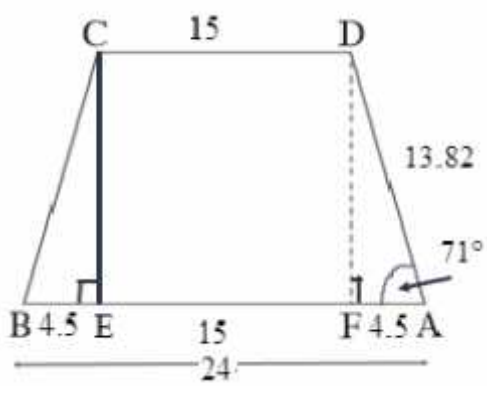
. 35,000- 1.1.2018 - , .

$$.30,870 \cdot 1.05^1 = 32413 : , 1.1.2019 -$$

$$.30,870 \cdot 1.05^2 = 34034 : 2 , 1.1.2020 -$$

$$.30,870 \cdot 1.05^3 = 35735 : 3 , 1.1.2021 -$$

. 35,000- 1.1.2021 - :



(,)
 () EF = CD = 15

$$AF = BE = \frac{24 - 15}{2} = \frac{9}{2} = 4.5$$

AF = 4.5 :

AD

ΔDFA

$$\cos 71^\circ = \frac{4.5}{AD}$$

$$AD = \frac{4.5}{\cos 71^\circ}$$

$$AD = 13.82$$

AD = 13.82 :

∠DBF

, DF

ΔDFA

$$(AF)^2 + (DF)^2 = (AD)^2$$

$$4.5^2 + (DF)^2 = 13.82^2$$

$$(DF)^2 = 170.74$$

$$DF = 13.07$$

$$BF = 15 + 4.5 = 19.5$$

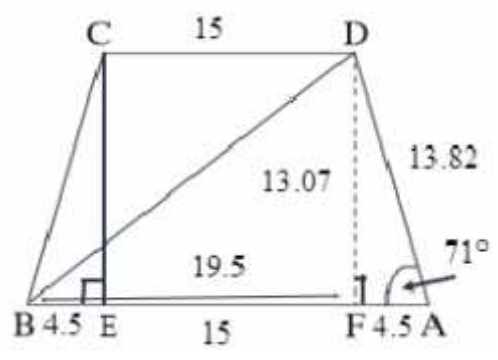
ΔDFA

$$\tan \angle DBF = \frac{DF}{BF}$$

$$\tan \angle DBF = \frac{13.07}{19.5}$$

$$\angle DBF = 33.83^\circ$$

∠DBF = 33.83° :



, AC

$\triangle ABC$

$$(AC)^2 = (AB)^2 + (BC)^2$$

$$(AC)^2 = 12^2 + 9^2$$

$$(AC)^2 = 225$$

$$AC = \sqrt{225}$$

$$AC = 15$$

∴ AC = 15

∴ ABCD

∴ $\triangle C'AC$

ABCD

AC'

∴ $\triangle C'AC$

∴ CC'

$\triangle C'AC$

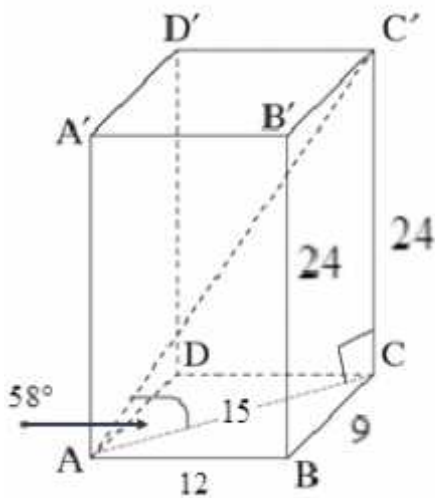
$$\tan 58^\circ = \frac{CC'}{AC}$$

$$\tan 58^\circ = \frac{CC'}{15}$$

$$15 \tan 58^\circ = CC'$$

$$CC' = 24$$

∴ CC' = 24

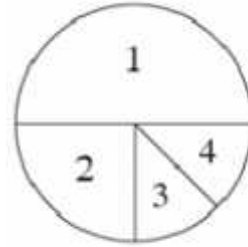


$$24 \cdot 12 = 288$$

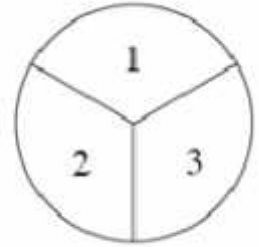
$$24 \cdot 9 = 216$$

$$2 \cdot 288 + 2 \cdot 216 = 1008$$

∴ 1008



גלגל ב



גלגל א

$$\cdot p(1) = \frac{1}{3}, p(2) = \frac{1}{3}, p(3) = \frac{1}{3} :$$

$$\cdot p(1) = \frac{1}{2}, p(2) = \frac{1}{4}, p(3) = \frac{1}{8}, p(4) = \frac{1}{8} :$$

$$\cdot p(3,3) = \frac{1}{8} \cdot \frac{1}{3} = \frac{1}{24} :$$

$$\cdot \frac{1}{24} :$$

.5

:()

$$\cdot p(2,3) + p(3,2) + p(4,1) = \frac{1}{4} \cdot \frac{1}{3} + \frac{1}{8} \cdot \frac{1}{3} + \frac{1}{8} \cdot \frac{1}{3} = \frac{1}{6}$$

$$\cdot \frac{1}{6} :$$

:()

$$\cdot p(1,2) + p(1,3) + p(2,3) = \frac{1}{2} \cdot \frac{1}{3} + \frac{1}{2} \cdot \frac{1}{3} + \frac{1}{4} \cdot \frac{1}{3} = \frac{5}{12}$$

$$\cdot \frac{5}{12} :$$

.80 -

16%

$$s = 8$$

$$.0.5\% + 1.5\% + 5\% + 9\% = 16\%$$

80 ,

$$\bar{x} = 80 - 8 = 72$$

s = 8 -

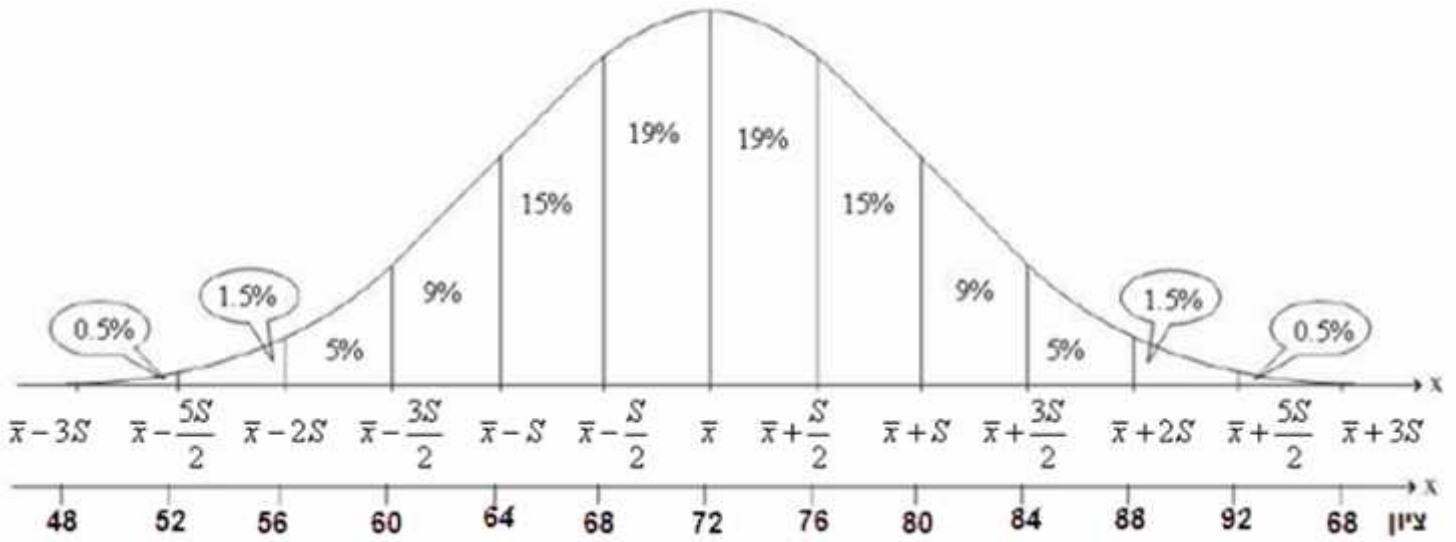
.72

:

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

$$\bar{x} = 72$$

$$s = 8$$



$$\frac{2}{100} = 0.02$$

$$.0.5 + 1.5\% = 2\%$$

56 -

.0.02

:

7% .

$$.0.5\% + 1.5\% + 5\% = 7\%$$

84

: