

II ()

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1. , , 780 , 365,25 , .687 , 780/365,25 = 2,135 , 780 , 1,135 780/1,135 = 687,22 .

2. x_1, x_2, \dots, x_{n-1} , $n \geq 3$, $x_i < x_j$,

$$0 < \frac{x_i - x_j}{1 + x_i x_j} < \lg \frac{\pi}{2(n-1)}$$

• $x_i = \operatorname{tg} \alpha_i$, $0 < \alpha_i < \pi/2$, $x_1 < x_2 < \dots < x_n$.
 $\alpha_2 - \alpha_1, \alpha_3 - \alpha_2, \alpha_4 - \alpha_3, \dots, \alpha_n - \alpha_{n-1}$,
 $\pi/2$. $(n-1)$, $(\alpha_{i+1} - \alpha_i)$
 $\frac{f}{2(n-1)}$. $x_i - x_{i+1}$,

3. $x^3 + ax^2 + bx + c = 0$.

$$S = \sqrt{-\frac{a}{2} \left(\frac{a^3}{8} - \frac{ab}{2} + c \right)}$$

$$S^2 = p(p - x_1)(p - x_2)(p - x_3),$$

x_1, x_2, x_3 — ,
 p — .

$$(x - x_1)(x - x_2)(x - x_3) = 0.$$

$$a = -(x_1 + x_2 + x_3) = -2p;$$

$$p = -a/2;$$

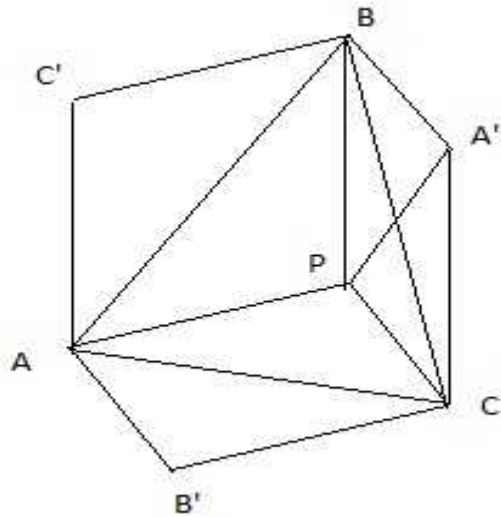
$$(p - x_1)(p - x_2)(p - x_3) = f(p) = f(-a/2) = -1/8a^3 + 1/4 a^3 - 1/2 ab + c = 1/8a^3 - 1/2 ab + c.$$

$$S = \sqrt{-\frac{a}{2} \left(\frac{a^3}{8} - \frac{ab}{2} + c \right)}$$

4.

?

$$S_{\max} = 2\sqrt{3}.$$



$ABCA'B'C'$ – P , $BA'CP$ – $[BC]$.
 A' $[PC] \parallel [BA'] \parallel [AB']$ $|PC| = |BA'| = |AB'|$, $PCB'A$
 $[AC]$, P B' $AC'BP$, P
 C' $[AB]$, ABC .

$$S_{\max} = 2 \cdot \sqrt{2} \cdot \sqrt{2} \cdot \frac{\sqrt{3}}{2} = 2\sqrt{3}$$

5.

6

?

: 132.

(0,0)

(6,6).

Ox,

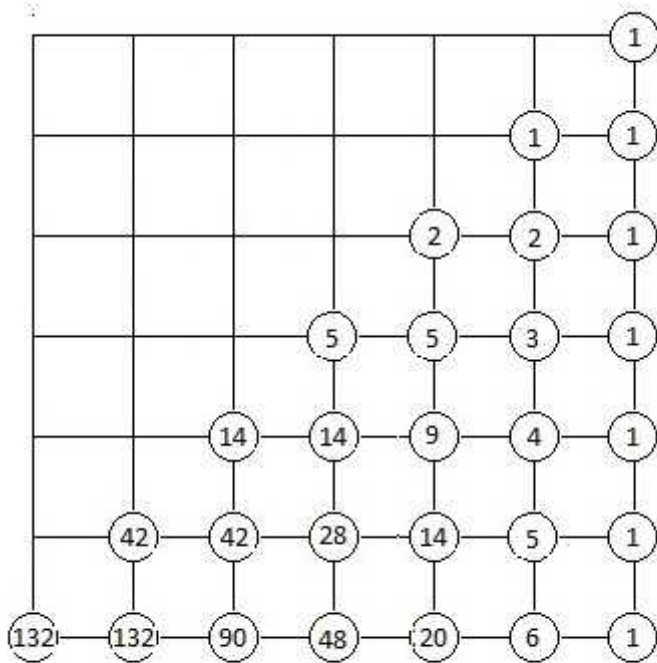
Oy.

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1

x y .
 (x, y)
 $(6,6)$.
 (x, y) $(x+1, y)$ $(x, y+1)$



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