

II ( )

11

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 3. ,  
 $x_i < x_j$ ,

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

•  $x_i = \operatorname{tg} \alpha_i$ ,  $0 < \alpha_i < \pi/2$ . ,  $x_1 < x_2 < \dots < x_n$ .  
 $2 - 1, 3 - 2, 4 - 3, \dots, n - n-1$  ,  
 $\pi/2$ . ( ,  $\alpha_{i+1} - \alpha_i$ )  
 $\frac{f}{2(n-1)}$ .  $x_i - x_{i+1}$  ,

3.

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

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

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

$$x_1, x_2, x_3 -$$

$$, p -$$

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

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

$$p = -a/2;$$

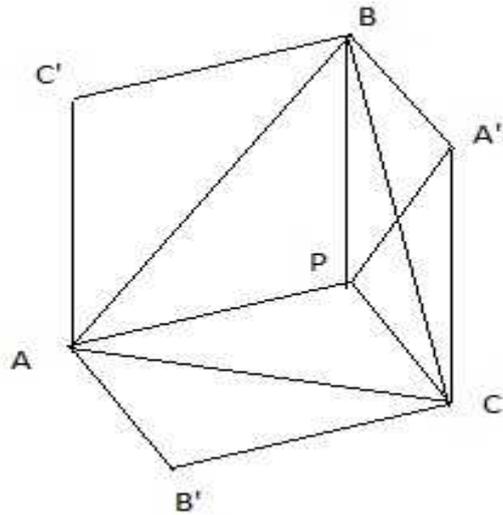
$$(p - x_1)(p - x_2)(p - x_3) = f(p) = f(-a/2) = -1/8a^3 + 1/4 a^3 - 1/2 ab + c = 1/8a^3 - 1/2 ab + c.$$

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

4.

?

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



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

$[PC] \parallel [BA'] \parallel [AB']$ ,  $|PC| = |BA'| = |AB'|$ ,

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

5.

6

?

: 132.

(0,0)

(6,6).

Ox,

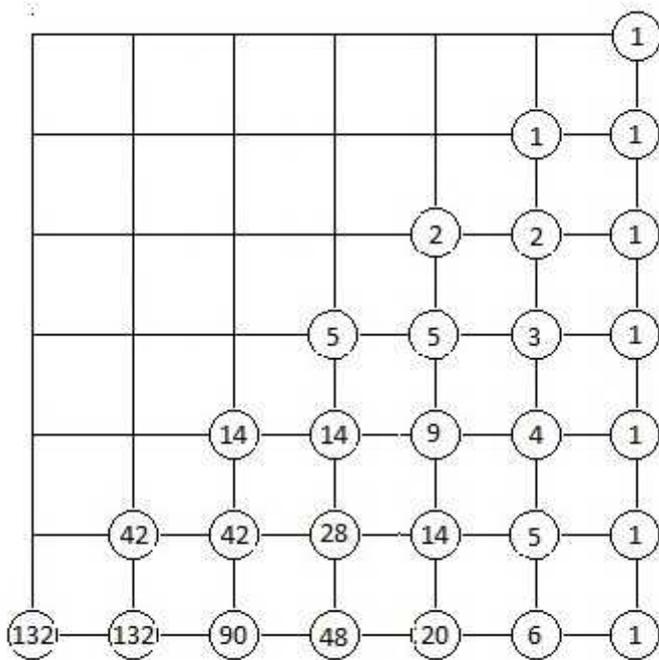
Oy.

1

12

1

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



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