

II ( )

10

-4

7

6-7

5-6

4

« + »

2-3

1

0

1

$$y = x^2$$

$x_1, x_2,$

$x_3 \cdot$

$$\frac{1}{x_1} + \frac{1}{x_2} = \frac{1}{x_3}$$

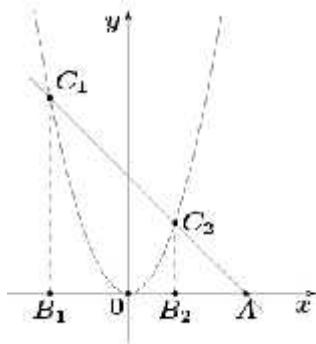
7

$$y = k(x - x_3).$$

$$x_1^2 - kx_1 + kx_3 = 0, \quad x_2^2 - kx_2 + kx_3 = 0$$

$$\frac{1}{x_1} + \frac{1}{x_2} = \frac{x_1 + x_2}{x_1 \cdot x_2} = \frac{k}{kx_3} = \frac{1}{x_3}$$

$A(x_3, 0), B_1(x_1, 0), B_2(x_2, 0), C_1(x_1, x_1^2), C_2(x_2, x_2^2)$



$$B_1C_1 : AB_1 = B_2C_2 : AB_2,$$

$$x_1^2 : (x_1 - x_3) = x_2^2 : (x_2 - x_3)$$

:

$$x_1^2 x_2 - x_1^2 x_3 = x_2^2 x_1 - x_2^2 x_3 \Leftrightarrow x_1 x_2 (x_1 - x_2) = x_3 (x_1 - x_2) (x_1 + x_2)$$

$$x_1 x_2 = x_3 (x_1 + x_2),$$

2

$a, b, c -$   
 $ab - 1, bc - 1, ca - 1$  4.

$a = 4k + 3, b = 4n + 3$   
 $ab - 1 = (4k + 3)(4n + 3) - 1 = 16kn + 12(k + n) + 8$

3

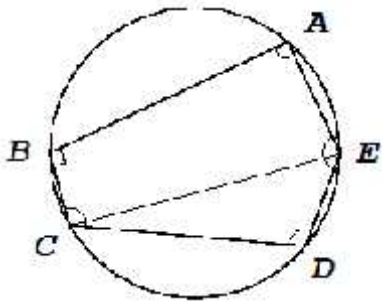
$x^2 + ax + b = 0$   
 $x^4 + ax^3 + (b - 2)x^2 - ax + 1 = 0$

$x_1, x_2 -$   
 $x^2 + ax + b = 0$   
 $x_1 + x_2 = -a, x_1 x_2 = b$   
 $(b - 2)x^2 - ax + 1 = (x^2 - x_1 x - 1)(x^2 - x_2 x - 1)$   
 $x^2 - x_1 x - 1 = 0, x^2 - x_2 x - 1 = 0$   
 $(x^2 - x_1 x - 1) - (x^2 - x_2 x - 1) = x(x_2 - x_1) = 0, x = 0$

4

80°, 90°, 100°, 130°, 140° ( ? )

$ABCDE, \angle EAB = 80^\circ, \angle ABC = 90^\circ, \angle BCD = 100^\circ,$   
 $\angle CDE = 130^\circ, \angle DEA = 140^\circ.$



$\angle EAB, \angle ECB$

$ABCDE,$

$\angle EAB + \angle ECB = 180^\circ$  (  $ABCE$  ).

$\angle ECB = 180^\circ - \angle EAB = 180^\circ - 80^\circ = 100^\circ = \angle BCD.$

$CE$

$CB, CD,$

$\angle ECB < \angle BCD.$

5

- ?  
7

5

:

9

-

, - 5 , 0.

,  
8 ( 5 0),  
- 10 .

5.

- 10 ,  
9.8.10<sup>3</sup> .

- ( 5),  
: 9.8.10<sup>3</sup> .

ABCDE

BCDEA;

B = 0,

5. B 0,

5CDEA.

5.