

11

-3 55 (235).

7
6-7
5-6
4
2-3
1
0

1

7

$$x=ay^2+b; y=cx^2+d.$$

a c

x

$$cx+ay=ac(x^2+y^2)+ad+cb,$$

$$(x - 0,5/a)^2+(y - 0,5/c)^2=1/4(1/a^2+1/c^2) - d/c - b/a.$$

2

$$\begin{cases} |x| > |y - z + t| \\ |y| > |x - z + t| \\ |z| > |x - y + t| \\ |t| > |x - y + z| \end{cases}$$

7

x, y, z, t.

$$x^2 > (y - z + t)^2, \dots (y - z + t - x)(y - z + t + x) < 0.$$

$$\begin{aligned} & \vdots \\ (x-z+t-y)(x-z+t+y) & < 0, \\ (x-y+t-z)(x-y+t+z) & < 0, \\ (x-y+z-t)(x-y+z+t) & < 0. \end{aligned}$$

$$-(x-y+z-t)^2(x+y-z+t)^2(x-y+z+t)^2(x-y-z+t)^2 = 0.$$

3

$$(1+x+x^2)(1+x+\dots+x^5)(1+x+\dots+x^{17}) = (1+x+\dots+x^8)^3.$$

$$x=0; \quad x = \sqrt[3]{\frac{-3 \pm \sqrt{5}}{2}}$$

$$(1-x^3)(1-x^6)(1-x^{18}) = (1-x^9)^3. \quad (1-x)^3:$$

$$(1+x^3)(1+x^9) = (1+x^3+x^6)^2 \quad x=1.$$

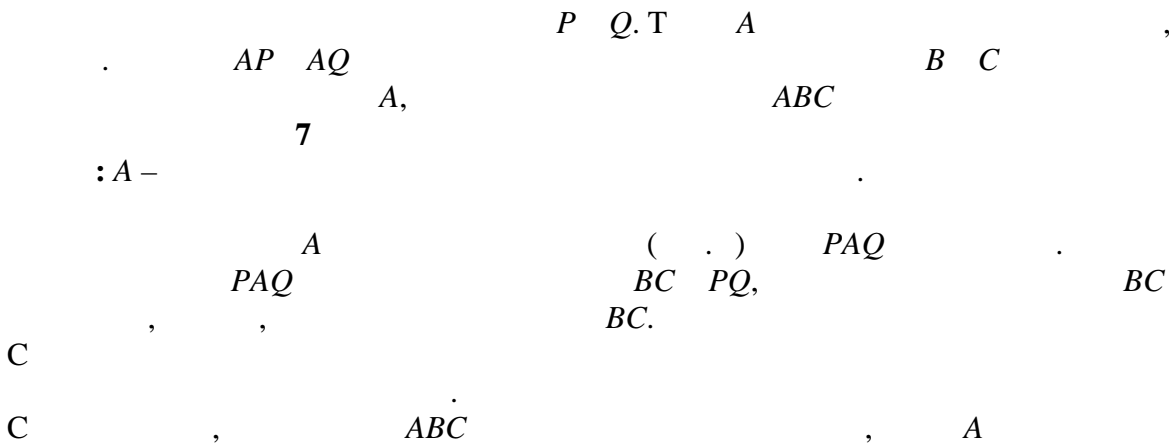
$$1+x^3+x^9+x^{12} = 1+x^6+x^{12}+2x^3+2x^6+2x^9.$$

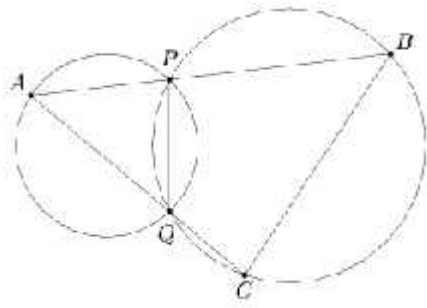
$$x^3(1+3x^3+x^9) = 0.$$

$$x=0$$

$$x = \sqrt[3]{\frac{-3 \pm \sqrt{5}}{2}}$$

4





5

$$3f(x) + f(1-x) = 8x^3 \quad x$$

$$\text{7}$$

$$\therefore f(x) = 4x^3 - 3x^2 + 3x - 1.$$

$$3f(x) + f(1-x) = 4x^3, \quad 1-x \quad x.$$

$$3f(1-x) + f(x) = 4(1-x)^3,$$

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