[illegible] $a=\infty$ [illegible]

[illegible]

[illegible]

[illegible]

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[illegible] $A-$ [illegible], $\partial A = 0$, [illegible] $D \subset \mathbb{C}$ [illegible], [illegible] $\left|A(z)\right| \le C < 1, \ \forall z \in D$. [illegible]

$$D_A = \frac{\partial}{\partial z} - \overline{A}(z)\frac{\partial}{\partial \overline{z}}, \quad \overline{D}_A = \frac{\partial}{\partial \overline{z}} - A(z)\frac{\partial}{\partial z} \ .$$

[illegible] $f(z) \in O_A(D)$ [illegible] $\overline{D}_A f(z) = 0$.

[illegible] 1 [2]. [illegible] $a \in \mathbb{C}$ [illegible] ***[illegible]*** $f(z)$, [illegible] $0 < \left|\psi(z,a)\right| < r$), [illegible] ($R < \left| z + \int_0^z \overline{A(\tau)}d\tau \right| < \infty$ [illegible] $a = \infty$), [illegible] $f(z)$ $A(z)-$ [illegible].

[illegible] 2 [2]. [illegible] a [illegible] $f(z)$ [illegible]

1) ***[illegible]***, [illegible]

$$\lim_{z \to a} f(z) = B$$

2) ***[illegible]*** [illegible]

$$\lim_{z \to a} f(z) = \infty$$

3) ***[illegible]***, [illegible] $f(z)$ [illegible] $z \to a$.

[illegible] $f(z)$ [illegible] $A(z)-$ [illegible] $L(a,r)\setminus\{a\}$ [illegible] $z = a$ [illegible]

[illegible] 1 [2]. [illegible] $a \in \mathbb{C}$ [illegible] $f(z)$ [illegible] $f(z)$ [illegible] a [illegible]:

$$f(z)=\sum_{k=0}^{\infty} c_k\left(z-a+\int_{\gamma(z,a)}\overline{A(\tau)}d\tau\right)^n .$$

[illegible] $a \in \mathbb{C}$ [illegible] $f(z)$ [illegible] $f(z)$ [illegible] a [illegible] ([illegible]) [illegible]:

$$f(z)=\sum_{n=-N}^{\infty} c_n\left(z-a+\int_{\gamma(z,a)}\overline{A(\tau)}d\tau\right)^n .$$

[illegible] $a=\infty$ [illegible] $A=const$. [illegible] $z=\frac{1}{w}$. [illegible] $f(z)=f\left(\frac{1}{w}\right)=g(w)$ [illegible], $\lim\limits_{z\to\infty} f(z)=\lim\limits_{w\to\infty} g(w)$ [illegible] g [illegible] $w=0$ [illegible] f [illegible] $z=\infty$. [illegible] g [illegible] $V=\left\{0<\left|z+A\bar{z}\right|<r\right\}$ [illegible]

$$g(w)=\frac{c_{-N}}{\left(z+A\bar{z}\right)^N}+\ldots+\frac{c_{-1}}{z+A\bar{z}}+c_0+c_1\left(z+A\bar{z}\right)+c_2\left(z+A\bar{z}\right)^2+\ldots$$

[illegible] $w=\frac{1}{z}$, [illegible]

$$V'=\left\{\frac{1}{r}<\left|z+A\bar{z}\right|<\infty\right\}$$

$$f(z)=\ldots+\frac{b_{-2}}{\left(z+A\bar{z}\right)^2}+\frac{b_{-1}}{z+A\bar{z}}+b_0+b_1\left(z+A\bar{z}\right)+\ldots+b_N\left(z+A\bar{z}\right)^N$$

[illegible] $b_n=c_{-n}, b_N\neq 0$.

[illegible].

[illegible] 3. [illegible] f [illegible] $a=\infty$ [illegible]- [illegible]. ***[illegible]*** [illegible]

$$\underset{z=\infty}{res} f(z) = \frac{1}{2\pi i} \oint_{|z+A\bar{z}|=R} f(z)\left(dz + Ad\bar{z}\right)$$

[illegible]

[illegible] 2. [illegible] $f - A -$ [illegible] $a_k (k = 1, 2, ..., n)$; [illegible]:

$$\sum_{k=1}^{n} \underset{z=a_k}{res} f(z) + \underset{z=\infty}{res} f(z) = 0 .$$

[illegible]

1. [illegible], 1991.
2. [illegible] $\phi(z)$-[illegible] 4.217 [illegible] 9-12.
3. [illegible] 1976.
4. [illegible] ϕ-[illegible]. Modern problems of dynamical systems and their applications. Turin polytechnic university in Tashkent . 2017 [illegible] 51-52.