$$\frac{\sqrt[4]{x^2+1^3-x^2+2}}{3\cdot x}$$

$$\left(\frac{6+4\sqrt{2}}{\sqrt{2}+\sqrt{6+4\sqrt{2}}}+\frac{6-4\sqrt{2}}{\sqrt{2}-\sqrt{6-}4\sqrt{2}}\right)^2$$

$$2\cdot\alpha^2-\alpha\cdot\beta-\beta^2, при \alpha=\sqrt{5}+1, \beta=\sqrt{5}-1$$

$$a_n=\frac{{}^2n}{n^2+1}$$

$$\sum_{n=1}^{\infty}\frac{1+n}{n^2}$$

$$2\vec{a}_1+3\vec{a}_2-\overrightarrow{a_3}-7\vec{x}=\overrightarrow{a_4}, где$$

$$\overrightarrow{a_1}=\begin{pmatrix}-1 & 2\\ -3 & 4\end{pmatrix}, \overrightarrow{a_2}=2\begin{pmatrix}-1 & -1\\ -1 & 5\end{pmatrix}, \overrightarrow{a_3}=\begin{pmatrix}2 & -5\\ -1 & 3\end{pmatrix}, \overrightarrow{a_4}=\begin{pmatrix}2 & 1\\ -2 & -1\end{pmatrix}$$

$$\frac{D(\varphi_1\cdot\varphi_2)}{D(x_1\cdot x_2)}=\begin{vmatrix}\frac{\partial\varphi_1}{\partial x_1} & \frac{\partial\varphi_1}{\partial x_2}\\ \frac{\partial\varphi_2}{\partial x_1} & \frac{\partial\varphi_2}{\partial x_2}\end{vmatrix}\neq 0$$

$$\begin{cases}y_1'=y_1-y_2,\\ y_2'=4y_1-3y_2\end{cases}\Rightarrow\Delta(\lambda)=\begin{vmatrix}1-\lambda & -1\\ 4 & -3-\lambda\end{vmatrix}=0$$

$$f(x)=\frac{a_2}{2}-\sum_{n-1}^{\infty}\left(a_n\cos\frac{\pi x}{2}+b_n\sin\frac{\pi x}{2}\right)$$

$$a_n=\frac{1}{2}\int_{-2}^{2}|1-x|dx=\frac{1}{2}\int_{1}^{2}(x-1)dx+\frac{1}{2}\int_{-2}^{1}(1-x)dx=\frac{1}{2}\left(\frac{x^2}{2}-x\right)\Big|_1^2+\frac{1}{2}\left(x-\frac{x^2}{2}\right)\Bigg|_{-2}^{1}=\frac{5}{2}$$

$$a_n=\frac{1}{2}\int_{-2}^{2}|1-x|\cos\frac{\pi nx}{2}dx$$

$$\int_{1}^{2}(x-1)\cos\frac{\pi nx}{2}dx=\begin{vmatrix}a=1-x, d\nu=dx\\ d\nu=\cos\frac{\pi nx}{2}dx, \nu=\frac{2}{\pi n}\sin\frac{\pi nx}{2}\end{vmatrix}=(x-1)\frac{2}{\pi n}\sin\frac{\pi nx}{2}\Big|_1^2-\frac{2}{\pi n}\int_{1}^{2}\sin\frac{\pi nx}{2}dx=$$

$$=\frac{4}{\pi^2n^2}\cos\frac{\pi nx}{2}\Bigg|_{-2}^{1}$$

$$a_n=\frac{(-1)^n}{\pi^2n^2}\cdot 2$$