

$$1 \quad C_1 > \frac{x+y}{\sqrt{x^2+y^2}}, \text{ где } \begin{matrix} x = x_1 - x_2 \\ y = y_1 - y_2 \end{matrix}$$

$$0 \leq \frac{x^2 + 2xy + y^2}{\underbrace{x^2 + y^2}_{\geq 2xy}} \leq 1 \Rightarrow C_1 \in (1, \sqrt{2}) \Rightarrow C_1 > \sqrt{2}$$

$$2 \quad C_2 < \frac{x+y}{\sqrt{x^2+y^2}} \dots C_2 < 1$$

$$3 \quad C_3 > \frac{\sqrt{x^2+y^2}}{\max(x,y)} \Big|_{x>y} \Rightarrow C_3^2 > \frac{x^2+y^2}{x^2} = 1 + \frac{y^2}{x^2} \leq 2$$

\uparrow
 1

$$C_3 > \sqrt{2}$$

$$4 \quad \text{Аналогично, } C_4^2 < \frac{x^2+y^2}{x^2} = 1 + \frac{y^2}{x^2}, \quad C_4 < 1$$

\uparrow
 $[0,1]$

$$5 \quad C_5 > \frac{x+y}{\max(x,y)} \Big|_{x>y} \Rightarrow C_5 > 1 + \frac{y}{x} \leq 1, \quad C_5 > 2$$

\uparrow
 $[0,1]$

$$6 \quad \text{Аналогично, } C_6 < 1 + \frac{y}{x} \Rightarrow C_6 < 1$$

\uparrow
 $[0,1]$