№4.

$\delta > 0$

$A = \begin{pmatrix} 1 & 10 \\ \delta & 1 \end{pmatrix}$

$(1-\lambda)^2 - 10\delta = 0$

$(\lambda - 1)^2 = 10\delta$

$\lambda = 1 \pm \sqrt{10\delta}$

$\epsilon(\delta) = 1 + \sqrt{10\delta}$

$K(\delta) = (1 + \sqrt{10\delta})' = 0 + \frac{10}{2\sqrt{10\delta}} = \frac{5}{\sqrt{10\delta}}$

$\delta = 10$

$K = 0{,}5$

$\delta = 0{,}1$

$K = 5$