1052.

Visa:

$$\left| \int_{\gamma} P\,dx + Q\,dy \right| \leq LM$$

L = Längden av γ.

M = max av $\sqrt{P^2 + Q^2}$ då $(x, y) \in \gamma$.

γ: $\begin{cases} x = x(t) \\ y = y(t) \end{cases}$ $\quad t : a \to b$

$$\left| \int_{\gamma} P\,dx + Q\,dy \right| = \left| \int_{\gamma} (P,Q)\cdot(dx,dy) \right| \le \int_{\gamma} \left| (P,Q)\cdot(dx,dy) \right|$$

$$\int_{\gamma} \left| (P,Q) \right| \left| (dx,dy) \right| = \int_{\gamma} \sqrt{P^2 + Q^2} \left| (dx,dy) \right| \le M \int_{\gamma} \left| (dx,dy) \right|$$

$$\int_{\gamma} \left| (dx,dy) \right| = \int_{\gamma} \sqrt{(dx)^2 + (dy)^2} = \int_{t=a}^{b} \sqrt{(\dot{x})^2 + (\dot{y})^2}\,dt = L$$

$$\left| \int_{\gamma} P\,dx + Q\,dy \right| \le LM$$