Here is a counterexample for midterm # 8:
Take $f : \mathbb{C} \to \mathbb{C}$ to be defined by $f(z) = \int_{0}^{z} e^{s^2} ds$. Show that
(1) $f'(z)$ nowhere vanishes;
(2) $f$ is surjective (observe that $f(-z) = -f(z)$)
(3) $f$ is not injective.