

Problems - Section 29

(6) Show that $|e^{z^2}| \leq e^{|z|^2}$.

(10a) Show that if e^z is real, then $\operatorname{Im} z = n\pi$, $n = \dots, -2, -1, 0, 1, 2, \dots$

(10b) Assume e^z is purely imaginary. Show a restriction on z similar to the one in problem (10a).