Exercise 3

Use established properties of moduli to show that when $|z_3| \neq |z_4|$,  
\[
\frac{\text{Re}(z_1 + z_2)}{|z_3 + z_4|} \leq \frac{|z_1| + |z_2|}{||z_3| - |z_4||}.
\]