Additional Problems Assignment 14

1. Let A be an $n \times p$ and B be a $p \times m$ matrices. One of the following is **always** true: ker $(B) \subseteq \text{ker}(AB)$, ker $(AB) \subseteq \text{ker}(AB)$, ker $(AB) \subseteq \text{ker}(AB) \subseteq \text{ker}(AB)$. Figure out which one and prove it.