## 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: $\operatorname{ker}(B) \subseteq \operatorname{ker}(A B)$, $\operatorname{ker}(A) \subseteq \operatorname{ker}(A B), \operatorname{ker}(A B) \subseteq \operatorname{ker}(B)$, and $\operatorname{ker}(A B) \subseteq \operatorname{ker}(A)$. Figure out which one and prove it.
