**Lemma**

\[ A \overset{f}{\rightarrow} B \overset{g}{\rightarrow} C \] is given. Then

\[
\frac{\ker 2 \circ f}{\ker f} = \ker 2 \cap \text{im } f
\]

**TUT**

\[ 0 \rightarrow \]

\[ 0 \rightarrow \]

I still don't understand Hutchings!

Perhaps we need a new Hutchings theory, in which relations don't form a tower; i.e.,

\[ K_{m+1} \overset{f}{\rightarrow} K_m \overset{g}{\rightarrow} D_m \overset{h}{\rightarrow} 0 \]

isn't necessary exact; in fact, it may not even exist.