1. How many moles of sodium bromide are in 13.6 g? (Show your calculations, not just the answer.)

2. How many moles of \( n \)-butyl alcohol are in 8.0 g? (Show your calculations, not just the answer.)

3. It is possible that despite your best efforts there is still some unreacted \( n \)-butanol contaminating the \( n \)-butyl bromide even after heating under reflux. However, you wash your organic material with concentrated sulfuric acid (among other washes, but the acid removes the \( n \)-butanol). How is the acid wash responsible for removing the unreacted \( n \)-butanol? Write a chemical reaction.