When to leave lab?

It is reasonable to leave the laboratory:

- If your reaction has been stirring at a constant temperature for one hour and is less than 25% complete
- If you have successfully run the reaction before and know it can be left safely
- If your reaction proceeds under mild conditions at room temperature and you have checked it twice by TLC

It is <u>not</u> reasonable to leave the laboratory:

- During time-sensitive steps (reaction, quench, and workup)
- In the middle of column chromatography
- If unstable compounds are not stored properly

Repercussions of leaving an experiment unattended:

- Solvent evaporated during refluxing due to a poor seal.
- Stirring stopped.
- Reaction became heterogeneous during slow addition, complicated mixing.
- Slow addition mechanism stopped, so reagent was not added to the flask properly.
- The desired reaction occurred cleanly, but then (a) a byproduct started to form, so the reaction appears to be nonselective (b) the product decomposed under the reaction conditions.
- Unwanted fluctuation of temperature
- You forgot to add a reagent or miscalculated, and no reaction occurred at all. You could have corrected the problem, but you didn't notice in time.
- You don't know how long the reaction took.
- You don't know if the reagent was consumed at the same rate as the substrate, or if it just gradually decomposed on its own.
- You will not see the formation of intermediates, which can be an important indication of reaction progress.

Source: http://chem.chem.rochester.edu/~nvd/leaving.html