Name: Student ID:

Lab Section: Date:

# **PreLab**

1. What is the standard grid size for a breadboard (in mm)?
2. Go to this web page <https://www.build-electronic-circuits.com/kicad-tutorial/> and read the article “Make Your First Printed Circuit Board” Part 2. Afterwards, answer the following questions:
   1. List three reasons why we route tracks?
   2. What kind of errors does the Design Rules Check look for?
3. Watch the tutorial video for this lab that is linked on Canvas.
   1. What is the keyboard shortcut to start routing?
   2. What are the three layers modified in the video?

# **Lab**

**4.2** Verify that you have placed the components in the correct orientation and location. In addition, make sure that the copper field is placed and configured correctly. Show your rearranged board to the TA before proceeding. (25 pts)

TA Initials:

**4.3** Verify that you have routed all required pins in a valid configuration and that through vias have been used in your design. Show your routed board to the TA before proceeding. (25 pts)

TA Initials:

**4.4** Verify that you have added the rectangle to the Edge.Cuts layer. And that your board is labeled with your team number and lab section in the appropriate spot. In addition, ensure that you have followed the steps to fill in your copper field. Show your updated design to the TA before continuing. (25 pts)

TA Initials:

**4.6** Verify that you have exported all Gerber files with the correct settings to your designated folder. Show your finished board and zipped files to your TA. (25 pts)

TA Initials: