Windows 10 Linux Subsystem Guide

You will need a 64-bit version of Windows 10 Anniversary Update or later (build 1607+). This guide was created for an Ubuntu 16.04.2 system (check with `cat /etc/*version*`). Note that parts 2 and 3 work for any Ubuntu 16.04 system.

Part 1: Installing the Subsystem

Follow the official guide by Microsoft on how to install the subsystem at:
https://msdn.microsoft.com/en-us/commandline/wsl/install_guide

Part 2: Installing Eigen

1. Install the library by running the command
   `sudo apt install libeigen3-dev`
2. Compile files that use Eigen3 with
   `g++ -std=gnu++11 file.cpp -I/usr/include/eigen3 -o file`

Part 3: Installing MathGL (optional)

1. Install the library using these two commands:
   `sudo apt install mathgl` and `sudo apt install libmgl-dev`
2. Compile files that use MathGL with `g++ -std=gnu++11 file.cpp -o file -lmgl`

Tips and tricks

- The Linux subsystem has its own file system, however, accessing these files from windows can lead to unexpected behavior. The better way is to access the Windows file system from your subsystem. You can for example get to your Desktop using this command:
  `cd /mnt/c/Users/WINDOWSUSERNAME/Desktop`
- You can use any editor within Windows to write program, then use the subsystem console to compile and run the program.