For this project, I used three separate geoprocessing tools: buffers, difference, and clip. Starting off, the project file provided two layers, one containing all fire incidents in Chapel Hill from 2011 and 2016 and a layer containing the locations of all fire stations in Chapel Hill.

My first step was to create a 1-mile buffer around all the fire stations. I then used this buffer layer to clip the layer containing all fire incidents which provided me with a layer containing only the fire incidents that were within one mile of a fire station. Using the attribute table I was able to conclude that 7562 fire incidents occurred within a mile of fire stations.

Next, I created a two-mile buffer around the fire stations. I once again used the clip method to calculate the number of fire incidents within 2 miles. Using the attribute table I was able to conclude that there were 11,657 incidents within two. To calculate the number of fire incidents between 1 and 2 miles of fire station I used the difference geoprocessing method between the 2 mile buffer and the 1 mile buffer. Using these new polygons I was able to once again use the clip method to conclude that there were 4095 further than 1 mile but less than 2 mile from a fire stations.

Finally to calculate the last layer I took the difference between the layer containing all fire incidents and the layer containing fire incidents within two miles. Using this I was able to conclude that were 522 fires that occurred further than 2 miles from a fire station.