

### Exercise 5

1. 'my\_clip.py', 'centroid.py'
2. Intersect (Analysis) tool:
  - a. in\_features, out\_feature\_class
  - b. {join\_attributes}: ALL
  - c. {cluster\_tolerance}:
  - d. {output\_type}: INPUT
3. 'three.py'
4. FeatureToLine:
  - a. in\_features, out\_feature\_class
  - b. {cluster\_tolerance}: 0.001
  - c. {attributes}: ATTRIBUTES
5. 'five.py'
6.
  - a. Tool parameters describe things such as tolerances, output file names, options, etc.
  - b. Using a variable instead of harcoding values can help with code reuse (multiple function calls can share variable parameters)
  - c. When running geoprocessing tools in ArcMap, arcpy comes pre-imported.
  - d. arcpy.Exists() -> bool
  - e. Result objects return geoprocessing messages (String)
  - f. Polygon: sequence of coordinate pairs, polyline: series of connected segments, and Raster: var that references a raster dataset

### Exercise 6

1. Result objects can contain more information than a single string or int (ie lists of strings, timestamps, etc.)
2. A unicode string is a sequence of unicode characters (as opposed to ascii). Unicode is better for international characters as unicode has a larger variety of characters than ascii. All python 3 strings are unicode.
3. The 'r' at the beginning of a string tells the python interpreter that a string is raw and should be taken literally - meaning escape characters ("/") should be read literally and not used to escape other characters. This is useful for filepaths.