1. What is a "Raster" object, and why do geoprocessing operations and map algebra expressions using rasters often result in temporary outputs?

A raster object is a variable that references a raster dataset. GP operations and map algebra generally output temporary rasters and add them to the map view in ArcGIS Pro. They do this so that you don’t unknowingly create large raster files and accidentally save them to your computer, taking up valuable memory.

2. What are the differences between raster datasets and raster bands?

* A **raster** dataset contains one or more layers called **bands**. For example, a color image has three **bands** (red, green, and blue) while a digital elevation model (DEM) has one **band** (holding elevation values), and a multispectral image may have many **bands**.
* A **raster dataset** is any valid **raster** format organized into one or more bands. Each band consists of an array of pixels (cells), and each pixel has a value. A **raster dataset** has at least one band. ArcGIS supports more than 70 different file formats for **raster dataset**, including TIFF, JPEG 2000, Esri Grid, and MrSid.

3. What is the difference between raster functions in ArcGIS Pro and their equivalent functions in arcpy.sa or arcpy.ia?

Raster functions in ArcGIS Pro are operations that apply processing directly to the cells of raster datasets without writing a new raster to disk. Many raster functions also are available as functions of arcpy.sa and arcpy.ia, which provide additional functionality for the processing and analyses of raster data. This functionality includes several specialized functions not available as geoprocessing tools

* Let me demonstrate this with Pro!