Overview of batch processing:

In ArcGIS, batch processing means to execute a single tool multiple times with different inputs without your intervention. Suppose you had several datasets with the projection undefined. Instead of opening the Define Projection tool many times and defining the projection for each dataset, you can use the batch option and fill out a simple form once and have the define projection process automatically.

To determine which tools have a batch option, right click the tool in ArcToolbox. For example to project 4 individual elevation grids you can use the Define Projection tool in batch mode.

Using the Define Projection Tool

1. Open Arc Toolbox.
2. Expand the Data Management Tools and Projections and Transformations tool boxes.
3. Right-click the Define Projection Tool and click Batch.
4. Click the plus sign [+] to add more rows. Continue to add more rows.

5. Right click in the empty box below the column heading Input Dataset or Feature Class and click Browse.
6. Navigate to your local directory and select your first elevation grid. Continue to the next rows and add the second dataset. [Alternatively, click and drag the datasets from the Table of Contents in the rows.
7. Right click in the box below the column heading Coordinate System and click Open.
8. In the Define Projection dialog box click the button on the right hand side to select a coordinate system. [The elevation data came with a projection file which stated that the projection is UTM NAD83 Zone 17N.]

9. Click Select and open the Projected Coordinate Systems folder, the UTM Folder, the NAD 1983 folder and select NAD 1983 Zone 17N.prj. Click Add and then OK.
10. Right click in the next row and select the option Fill. The row will automatically be populated with the same coordinate system.

11. To execute the batch processing click OK.

**Why is Batch Processing Useful?**

One classic scenario for batching is using the Clip tool to clip multiple input datasets to a predetermined study area polygon. Suppose you had 20 datasets to clip. Obviously, you could open the Clip tool dialog 20 times, fill out the parameters, and execute. By the time you're done, a half-hour may have passed. By using the batch option, you can spend just a few minutes filling out a simple form (the batch grid) specifying the 20 input datasets, then have Clip automatically execute 20 times, freeing you to do other work.