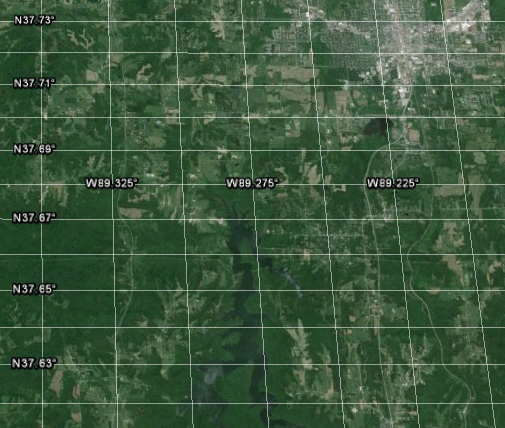
One interesting feature of the August 21, 2017 total solar eclipse is that its path of totality across the continental US crosses over the paths of earlier and later eclipses. One exciting crossing will occur between the 2017 and the April 8, 2024 total solar eclipse! In the map below, the major longitude and latitude grid lines are labeled. The grid spacing is 0.01 degrees in latitude and 0.025 degrees in longitude.

  
*Earth area with grid  
Credit: GOOGLE Earth*

Two points along the path of the 2017 eclipse are at

                        Point 1:    89.31  West,    37.66 North

                        Point 2:    89.24  West,    37.63 North

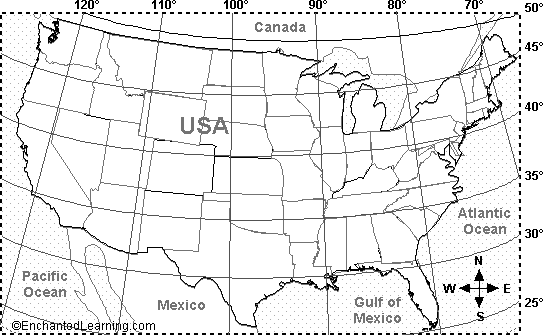
Two points along the path of the April 8, 2024 eclipse are at

                         Point 1:   89.30  West,   37.62 North

                         Point 2:   89.27  West,   37.64 North

**Problem 1:**  Graph these two pairs of points on the image, and assuming that the eclipse paths are straight lines, find the coordinates of the intersection point of the two eclipses.

**Problem 2**: Use the map below to locate coordinates of the intersection point. What is the name of this state?



To unlock your next lock, use the internet to determine the year that this state became a state.

