

This system provides the 24k Quarter-Quad code as per the system used by the Center for Lidar Information Coordination and Knowledge (<http://lidarbb.cr.usgs.gov>). The latitude and longitude values should be the southeast corner of the tile. Quarter-Quads are each 1/16 of a degree in width and height. They are referenced on the NAD83 Datum.

These codes have the following structure:

AAOOOaoq

Where

AA is the positive whole number component of the latitude.

OOO is the positive whole number component of the longitude (zero-padded to a width of 3).

a is an alpha character a-h designating which quad in the degree of latitude, where a is closest to 0 minutes and h is closest to the next full degree. Each represents 1/8 of a degree.

o is a numeral 1-8 designating which quad in the degree of longitude, where 1 is closest to 0 minutes and 8 is closest to the next full degree. Each represents 1/8 of a degree.

q is an alpha character a-d designating which quarter in the quad, where a is southeast, b is northeast, c is northwest, and d is southwest. Each Quarter-Quad is 1/16 of a degree in latitude and 1/16 of a degree in longitude.

For example, 47104h2c means:

47 - 47 degrees latitude

104 - 104 degrees longitude

The section is in the degree range starting 47°N, 104°W.

h - h is the 8th in sequence, so it is the last section and would start at 7/8 of a degree, or 0.875

2 - 2 is the 2nd in sequence, so it is the 2nd section and would start at 1/8 of a degree, or 0.125

The quad's southeast corner is 47.875°N; 104.125°W.

c - c is the northwest corner, which means 1/16 degree has to be added to both N and W, or 0.0625 to each.

The quarter-quad's southwest corner is 47.9375°N; 104.1875°W.

Correspondingly, `calc24qq(47.9375, -104.1875)` results in "47104h2c".

These codes are only valid for locations with positive latitude and negative longitude.

Parameters:

latitude, longitude: Must be in decimal degree format. May be a single value each or an array of values each. Must be in the NAD83 projection, or equivalent.