

Q9 (through Visualization 4)

⚠ This is a preview of the published version of the quiz

Started: Dec 14 at 9:50am

Quiz Instructions



Question 1

0.1 pts

What is the best way to best describe the relationship between DataFrame (of the pandas module) and GeoDataFrame (of the geopandas module)?

- ☐ A DataFrame can do everything a GeoDataFrame can do, and more
- ☐ A GeoDataFrame can do everything a DataFrame can do, and more
- ☐ While both data types have much in common, they both have some features that the other lacks



Question 2

0.2 pts

You want to make an animation smoother, so you double the number of frames. What else should you do so that the video does not become longer or shorter?

- ☐ halve the DPI
- ☐ double the DPI
- ☐ halve the xlim
- ☐ double the interval
- ☐ double the xlim

- ☐ halve the interval

**Question 3****0.1 pts**

Which CRS (Coordinate Reference System) effectively treats an area of the earth as flat?

- ☐ Latitude/Longitude
- ☐ The .shp projection
- ☐ EPSG:4326
- ☐ EPSG:32616

**Question 4****0.2 pts**

Say we run the following, which involves three shapely shapes.

```
s3 = s1.difference(s2)
```

Afterwards, we observe that s3 has the same area as s1. What can we guarantee?

- ☐ s2.difference(s1) would produce the same shape as s3
- ☐ s2 partially overlaps with s1
- ☐ s2 perfectly overlaps with s1
- ☐ the area of s1 does not overlap with the area of s2
- ☐ s2 is smaller than s1, but still has area > 0
- ☐ s2 has area equal to 0

**Question 5****0.1 pts**

What is geocoding?

- ☐ converting coordinates to addresses
- ☐ encoding political boundaries as polygons
- ☐ assigning zip codes to coordinates
- ☐ converting addresses to coordinates

**Question 6****0.1 pts**

To correctly compute distance, what units should the variables be in?

x1 = ????

x2 = ????

y1 = ????

y2 = ????

distance = $((x1-x2)^2 + (y1-y2)^2)^{0.5}$

Choose the best answer.

- ☐ x and y values should be in meters
- ☐ x values should be latitude and y values should be longitude
- ☐ y values should be latitude and x values should be longitude
- ☐ x and y values should be in degrees

**Question 7****0.1 pts**

To have a "sharper" image, we need:

- ☐ lower DPI
- ☐ higher DPI



Question 8

0.1 pts

A circle is hidden beneath a square. If you want to see the circle, what could you do?

- ☐ increase alpha of the square
- ☐ increase alpha of the circle
- ☐ increase z order of the circle
- ☐ decrease z order of the circle

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