

SLSI- Datums Are A'Changin' - Assignment

Complete this assignment before the workshop. Have fun.

True or False.

Circle the correct response for each.

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|---|---|-----------------------------------------------------------------------------------------------------------------------|
| T | F | 1. Gravity lines are all straight. |
| T | F | 2. NAVD 88 is a pretty good representation of the geoid. |
| T | F | 3. Only GNSS control points will be part of the 2022 NSRS- no traditional ground based measurements will be included. |
| T | F | 4. The 1/10,000 limit in State Plane Coordinates Systems is the distance distortion between ground and grid. |
| T | F | 5. A typical tidal cycle takes 4-5 years. |
| T | F | 6. NGS' official software for converting and transforming coordinates and elevations is called NCAT. |
| T | F | 7. Principio was the first point used as the origin of an American horizontal datum. |
| T | F | 8. UTM is short for Universal Terrain Model. |
| T | F | 9. One way to minimize 3D to 2D distortion is to reduce the size of the area projected. |
| T | F | 10. Vertical lines are perpendicular to the ellipsoid. |

Short Answer

SA (1) When did the National Geodetic Vertical Datum of 1929 (NGVD29) get its name?

SA (2) What forces shape the geoid?

SA (3) What projection surfaces are used to build grid coordinate systems?

SA (4) What is the shortest distance between two points on an ellipsoid called?

SA (5) What's the significance of Meade's Ranch?

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SA (6) What is the deflection of the vertical?

SA (7) What are the three geologic plate regions of NAD 83 (2011)?

SA (8) What are the two distortions are introduced projecting the 3D Earth into a 2D plane?

SA (9) Does Iowa have statute or code which enables use of formal coordinate systems on survey maps? If so, identify the law/code and which are allowable coordinate systems.

SA (10) What's the difference between a transformation and a conversion?