

Geospatial Lab Application 1.1 Answer Key

Question 1.1:

The roof and some of the spires can be seen from the aerial image – these can be matched up with the images you can see in StreetView. Other details (such as the façade on the side of the Corn Palace) are not visible from the air.

Question 1.2:

This was likely the fastest or shortest route between the Corn Palace and Wall Drug, based on travel distance or travel time. It takes the I-90 interstate between the two locations.

Question 1.3:

About 222 miles (or about 3 hours and 10 minutes of driving time) along I-90 W.

Question 1.4:

Approximately 2617 feet

Question 1.5:

Viewing Google Earth from the perspective view allows you to see the various landforms (such as peaks, hills, and valleys) in a pseudo-3D representation.

Question 1.6:

The photo is just that – a photo, just like if you would have downloaded the image off the internet. It doesn't have any spatial reference attached to its locations or coordinates. We haven't actually matched it up with any real-world locations or dimensions yet.

Question 1.7:

About 1130 feet (this will depend on where the placemarks are put – it's also the measured distance along the ground from the amphitheatre along the mountain up to the top, not a straight line between the two points).

Question 1.8:

All we're looking at right now is an aerial photo and the underlying terrain, not any of the actual features on the landscape (such as the carvings on the side of the mountain or the seating of the amphitheater).

Note that if the "3D Buildings" option in Google Earth is turned on, a model of the presidential faces will be added to the top of Mount Rushmore so that the faces can be seen. However, this model is an add-on and not part of the actual terrain or imagery that is present in Google Earth. Without the "3D Buildings" feature activated, the faces on the side of the mountain cannot be seen.

Question 1.9:

Approximately: 43.875365 latitude and -103.452655 longitude

Question 1.10:

The Crazy Horse monument

Question 1.11:

Sylvan Lake

Question 1.12:

This gives you a much better image of what the ground looks like at that particular location, based on the 360 degree photos (which are actual photographs of the area, not modeled representations).