

GEOG 226 Optional Lab

Answer the following questions in a neat and organized fashion. Show all calculations and be sure to include units. Neatness will be a consideration in marking (actually, if it isn't neat and easy to follow it will get a zero).

Coordinates

1. Refer to the 92 G/7 (Port Coquitlam) NAD 27 map that was attached to your Map Coordinates Lab. For the lab you determined the UTM and lat/long coordinates for spot height 471. For this lab
 - a. determine the UTM coordinates (nearest metre) for the point where Gurney Creek enters Pitt Lake
 - b. determine the lat/long coordinates (nearest second) for the point where Gurney Creek enters Pitt Lake

Map Scale

1. Express the following as a ratio (representative fraction):
 - a) 1 cm = 15 m
 - b) 1" = 200'
 - c) 1" = ½ mi.
 - d) 1 mm = 30 m
2. What is the map length (cm) of 3 km on a 1: 20,000 map?
3. What is the 'real world distance (m) of 5.55 cm on a 1" = ½ mile photo?
4. The distance between two lakes on Map A (scale of 1" = 2,640') measures 2.55 cm. What would the map measurement be on Map B if it had a scale 1: 50,000 map?
5. The distance between two features on a photo is 11.5 cm and the corresponding distance is 5 km on the ground. What is the approximate scale of the photo?
6. You have a 1:10,000 map and a photo (30BCC09222 – 101) of unknown scale. A lake is visible on both – it measures 6.1 cm on the map and 3.35 cm on the photo.
 - a. Determine the scale of the photo.
 - b. What is the flying height (in metres and in feet) for the the photo in the previous question?
 - c. If the altimeter read 19,500 feet, what is the elevation of the ground?