GEOG 226
Terrain Lab

Name:_____

Answer the following questions in a neat and organized fashion. **Show all calculations and be sure to <u>include units</u>.** Neatness will be a consideration in marking. Be sure to attach the <u>properly folded</u> map.

Refer to the 1:50,000 map sheet 92E/10 (Nootka)
1. Determine the elevation of "point B", located on Strange Island. Explain your reasoning.

2. Draw a line due east on the map from spot height "799" (located just below the "V" in Vancouver) to Hoiss Creek.
    a. What is the elevation of Hoiss Creek at this location?

    b. What is the average slope (in % and degrees) from Hoiss creek to spot height 799?

    c. What is the slope distance (nearest metre) from Hoiss creek to spot height 799?

3. You are planning a hike from the end of a road, labeled as **point "D"** (located to the west (left) of "Forest"), to the peak of **Santa Cruz de Nuca Mountain** and then, staying on the ridges (height of land) until you get to **point "C"** (located by the first "o" in Nootka). Sketch your route on the map - be sure to stay on the ridge tops and avoid steep slopes.

4. You are "lost" but somewhere on the map. From your location you can see the peaks of Santa Cruz de Nuca Mountain at 284⁰, James Cone at 319⁰ and Mount Walker at 012⁰. Determine your location – show your workings (i.e. label any line work) on the map. Comment on the confidence of your location.

5. Carefully and neatly draw a profile along the Easting line 679,000 from the shoreline of Hisnit Inlet to the shoreline at Tlupana Inlet. Use a horizontal scale of 1: 50,000. For the vertical scale use "1 square" = 40 m elevation on the graph paper provided. Be sure to include a title and label both axes. Also label any cultural (roads, trails, etc.) or physical (water, peak) features on the profile; put your labels above the profile.   Note the direction (azimuth) of your profile in a subtitle.

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What is the vertical scale of the profile? How much is the vertical scale exaggerated?

Refer to the 1:25,000 sketch map of Moose Lake

6. At a grade of 4%, **plot a trail location** from the end of the road (marked "C") up to the viewpoint (marked "V"). Determine the horizontal distance of the proposed tail.   (As a bonus, determine the walking distance (SD) of the trail – note that it will be <u>very</u> close to HD because the grade is so slight).