GEOG 226 – Spatial data
**Horizontal Measures Lab**

Name: _____

Answer the following questions in a neat and organized fashion. <u>Show all calculations</u> and be sure to <u>include units</u> – marks come from showing your work, not necessarily the answer itself. Neatness will be a consideration in marking.

1. Express the following as representative fractions (1: xx,xxx):
     a) 1 cm = 2.5 km   b) 1" = 960'   c) 1" = ½ mi.

2. Draw a scale bar that depicts 3 kilometers for a scale of 1: 20,000. Each half kilometer should be marked so that the bar has six sections.

3. Determine the scale, as a representative fraction, of the scale bar below.

| 0 | 150 | 300 | 450 | 600 | 750m |
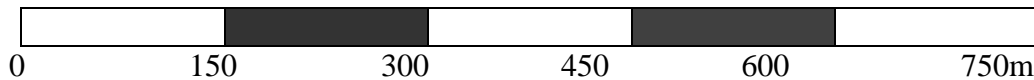
4. The ground distance between two features is 4.5 km and on a photo the corresponding distance is 7.30 cm. Calculate the approximate scale of the photo.

5. The two points below represent wildlife trees on a map and the distance between the two trees is 770 metres on the ground. Calculate the scale.

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6. The distance between two road intersections measures 10.0 cm on a 1" = ½ mile air photo. Calculate the ground distance (in metres).

7. Calculate the length (in cm) of 1 mile on a 1:250,000 map.

8. Calculate the scale of the 1891 map of Nanaimo as a representative fraction.

9. Calculate the scale of the Nanaimo Project map (don't trust the scale provided as it has been altered on the photocopier … insert evil laugh).

10. Calculate the scale of air photo 30BCC240.