

**FOR 274 Assignment 6 [50 points] Name: \_\_\_\_\_**

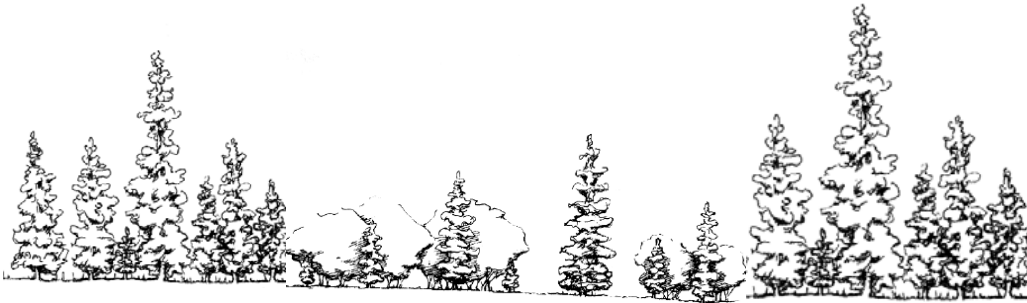
This assignment should be completed and handed in to the assignment box in the Forest Resources office by noon on Monday 12<sup>th</sup> October. Partial credit will only be given for incorrect answers if you show your work.

1. Assume you have a dot grid with 24 dots per sq inch. How many acres would be represented by each dot at map scales of :
  - a. 230 ft per inch
  
  - b. 35 chains per inch
  
  - c. 6 miles per inch
  
2. Refer to Map Resource 1 (from the website) and answer the following questions (assuming the given map scale is accurate):
  - a. What are the bearing and horizontal distances (ft) from Sand Point to Tskawahyah Island?
  
  - b. What is the length, width (ft), and direction of flow of Seafield Lake and Seafield Creek?
  
  - c. Calculate the bearings and distances you would use to triangulate from Cake Rock to both Cape Johnson and Little James Island.
  
  - d. Calculate the area (acres) and highest point (ft) on the Ozette Indian Reservation.
  
  - e. What is located at S19, T31N, R15W, WM?
  
  - f. What is the approximate Township and Range description of Ahlstroms Prairie?
  
3. What is the equation for the cross-sectional area of a tree (in square feet) when the diameter (in inches) is known?

5. To the nearest 10 feet, how far is Spokane located from the principal meridian?  
(T25N, R43E, WM; location of Spokane)

6. Describe how you can use contours to identify the direction of flow of a river.

7. What crown class classifications would you give for each of the following trees? Explain your assumptions:



8. In the figure below we need to calculate distances to equip pullies and skylines to aid in harvesting. We have measured the height of tree AB as 42 feet, the distance BC is spanned by a skyline of 26 feet, and the height of tree AC is 37 feet. We also know that tree AC is standing upright. If you make the assumption that tree CD is leaning at the same slope as tree AB to the horizontal and that the distance (in feet) between A and D is 60 feet, then what is the height of tree DC?

