

FOR 274 Assignment 10: Sampling and Fixed Area Plots [20 points]

This assignment should be completed and handed in at the start of the next lab.

1. Calculate the radius (to the nearest inch) for a fixed area plot of area [5 points]:

- a. 5th acre

- b. 10th acre

- c. 20th acre

- d. 100th acre

- e. 300th acre

2. Calculate the radius (to the nearest 10 cm) of a fixed area plot of area [2 points]:

- a. 10th hectare

- b. 20th hectare

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3. Calculate the area (to the nearest 100th acre) of a fixed area plot of radius [3 points]:

a. 8 feet

b. 37.2 feet

c. 2 chains

d. 11.35 meters

e. 20 meters

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4. Statistics are Fundamental to Sampling [10 points]

Site 1 Data:

Tree #	Species code	DBH (in)	Height (ft)
1	PIPO	20	112
2	PIPO	18	98
3	PIPO	22	108
4	PIPO	18	102
5	PIPO	13	67
6	PIPO	22	89
7	PIPO	13	65
8	PIPO	13	56
9	PIPO	19	102
10	PIPO	14	64

- a. In this space draw a bar chart of the DBH and height distributions and state whether the distributions are normal or skewed. NOTE: you will have to select appropriate bin sizes. [2 points]:

- b. Calculate the mean, mode, range, variance, and standard deviation of the tree heights [5 points]:

- c. Calculate to what extent the DBH and height are correlated and discuss whether given this data it is appropriate for relationship to be produced to predict DBH from a measure of the tree height [3 points]?