FRST 211 Statistics Assignment

Purpose:
To gain proficiency in conducting statistical calculations.

Data (m^3/ha of polygons – nice F(C) – 10ha, and poor F(Pl)) – 20ha:

1 - F(C)	436	1 – F(Pl)	333
2 - F(C)	763	2 – F(Pl)	294
3 - F(C)	928	3 – F(Pl)	398
4 - F(C)	604	4 – F(Pl)	323
5 - F(C)		5 – F(Pl)	370

Assignment:
First fill in the remaining data box. Conduct the following calculations, showing ALL work (including units) in a neat manner:

Calculate the following (to one decimal place): mean, SD, CV, SE, SE%

1. Determine the sampling error (%) and confidence interval at 95% confidence.

2. Determine the sampling error (%) and confidence interval at 90% confidence.

3. Determine how many samples we need to achieve a sampling error of 15% (or less) at 95% confidence.

4. ~~Determine how many samples we need to achieve a sampling error of 10% (or less) at 95% confidence? Proportionally, how much more/less work was required to 'alter sampling error by 5%'? Determine how many samples we need to achieve a sampling error of 15% (or less) at 90% confidence? Proportionally, how much more/less work was required to 'alter confidence by 5%'?~~

5. Stratify the data into two types: F(C) and F(Pl). Determine the combined sampling error (%) at 95% confidence. (Note that the degrees of freedom for Student's t = n-s, where s= no. of strata).

6. ~~Determine how many plots should be established to attain a sampling error of 15% (or less) at 95% confidence~~

7. ~~Discuss how these plots could be allocated to the two strata.~~

~~No need to do the questions is strike-through font at this time … but they are good questions.~~