ONE: In a point sample (a.k.a. prism cruise) using a BAF of 10, a total of 144 trees were "in" across 12 unique sample points. What is the estimated mean basal area per acre?

\[
\frac{144 \text{ trees}}{12 \text{ plots}} \times \frac{10 \text{ ft}^2/\text{ac}}{\text{tree}} = 120 \text{ ft}^2/\text{acre, average}
\]

TWO: When sampling trees in plots, what does it mean for a tree to be described as "borderline"? Explain.

A borderline tree falls too close to a plot boundary to tell for certain if it is "in" or "out" without careful measurement. In such cases, you need to measure H.D. and compare.

THREE: Explain how you correct for slope when checking borderline trees in a BAF 10 point sample.

\[H.D. = SD \times \cos \alpha\]

If \[H.D. \geq H.D.\text{ new}\] then tree is "in".

FOUR: In point sampling (a.k.a. prism cruising or angle-count sampling) we say, "big trees have big plots". How precisely does this increase the probability of being sampled? Explain.

If points are random, then they are more likely to fall inside the inclusion zone for large trees, since large DBH means large inclusion zone.