

Answer-(5) Differentiate between  
Plan and Map

Map

(i) A map is a visual representation of an area - a symbolic depiction highlighting relationships between elements of that space such as objects, regions, and themes

(ii) A map is an official document filed with the county like a plat map, or a partition plat or a property line adjustment map etc.

(iii) If the scale is small, the representation is called map

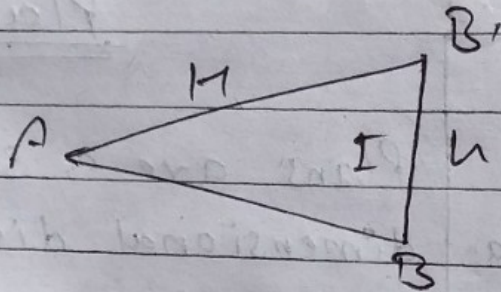
Plan

Plans are a set of two dimensional diagrams or drawings used to describe a place or an object, or to communicate building or fabrication instructions.

A plan can be of anything - building layout, site layout, parking arrangements, storm drain etc.

If the scale is "large" the representation is called plan.

# Correction for Slope Derivation :-



let  $l_1, l_2, \dots$  = length of successive uniform slopes  
 $h_1, h_2, \dots$  = diff in height b/w extremities.

the slope correction =  $l - \sqrt{l^2 - h^2}$

$$= l - l \left( 1 - \frac{h^2}{2l^2} - \frac{h^4}{3l^4} - \dots \right)$$

$$= h^2 \left( \frac{1}{2l} + \frac{h^2}{3l^3} + \dots \right) = \frac{h^2}{2l} \quad (6)$$

hence,  $\cos \theta = \frac{h_1^2}{2l_1} + \frac{h_2^2}{2l_2} + \dots + \frac{h_n^2}{2l_n} \quad (6a)$

$$\therefore \cos \theta = \frac{1}{2l} (h_1^2 + h_2^2 + \dots + h_n^2)$$

$$= \frac{\sum h^2}{2l} \quad (6b)$$

the correction for the slope =  $l - l \cos \theta = 2l \sin^2 \theta / 2$   
 version of (ve)  $\dots (7)$