To draw a triangle given the base, difference of the remaining two sides and the difference of the base angles.

Example :

Draw ΔABC, in which $BC = 5cm.$, $AC - AB = 2cm.$ and $\angle B - \angle C = 50^0$.

Analysis :

Let ABC be the required triangle since $AC - AB = 2cm.$ $AC > AB$.

So we can locate apoint D on AC.

Such that $AB = AD$.

$AC - AB = AC - AD = 2cm.$

Since $AB = AD$, $\angle ABD = \angle ADB$.

Let $\angle ABD = \angle ADB = x$.

Since $\angle B - \angle C = 50^0$.

$\angle C = \angle B - 50^0$.

$\angle DBC = \angle ABC - x$

$x = \text{Ext.} \angle ABD = \angle B - x + \angle B - 50^0$.

$2x = 2\angle B - 50^0$.

$x = \angle B - 25^0$.

$\angle DBC = \angle B - (\angle B - 25^0)$

Since $AB = AD$, A lies on the perpendicu lar bisector of BD.