CLASS: IX  MATH ACTIVITY NO: 2  SIDES AND ANGLES OF A TRIANGLE

OBJECTIVE: To verify that if two sides of a triangle are unequal, the longer side has a greater angle opposite to it (by paper cutting and pasting method).

DESIGN AND OR APPROACH TO THE ACTIVITY: 1) Knowledge of the fact that only angles opposite to equal sides of a triangle are equal. 2) Comparison of angles magnitude by paper cutting and pasting method.

PROCEDURE: 1) Draw any triangle ABC with unequal sides, say, AB = 6cm, BC = 7cm and AC = 8cm as shown in fig.(i). 2) With the help of a protractor, measure the three angles of \( \triangle ABC \). 3) Make cut-outs of LA, LB and LC in triplicate and colour them with different colours.

RESULT: On measuring, we find that \( \angle B = 75^\circ \), \( \angle C = 47^\circ \) and \( \angle A = 58^\circ \). On comparing the measurements of the three angles, we find that 
(i) AC > BC and LB > LA 
(ii) AC > AB and LB > LC 
(iii) BC > AB and LA > LC. Thus, we observe that the longer side has a greater angle opposite to it.

Since AC > BC > AB, we find that LB > LA > LC. The same is observed by comparing the cut-outs of LA, LB and LC. Hence Verified.