%script file:law\_of\_cosines

%

%objective:To find ?,? and ? by law of cosines.

%

%Record of revisions

% Date programmer description of change

% ==== ========== =====================

% 21/08/15 satyabrat sahoo original code

%

%Define variables

% input variables

% a=length BC

% b=lenght AC

% c=lenngh BA

%output variables

% alpha= angle BAC

% beta= angle CBA

% gamma= angle BCA

%

%prompt the user for the input variables

a=input('length BC');

b=input('length AC');

c=input('length BA');

%calculation

alpha=acosd((a^2-b^2-c^2)/(2\*b\*c));

beta=acosd((b^2-a^2-c^2)/(2\*a\*c));

gamma=acosd((c^2-a^2-b^2)/(2\*a\*b));

%write the result

disp(alpha);

disp(beta);

disp(gamma);