**OSISATECH GIRLS SECONDARY SCHOOL, INDEPENDENCE LAYOUT ENUGU**

**FIRST ASSESSMENT ASSIGNMENT**

**CLASS: SS II SUBJECT: MATHEMATICS**

***INSTRUCTION:*** **Submit within 7 days to** [longiclinton@yahoo.com](mailto:longiclinton@yahoo.com) with your name, Class and contact.

1. Two huts and a radio mast are on level ground such that one hut is due east of the mast and the other due west of it. From the top of the mast, the angles of depression of the huts are 60o and 45o respectively. If the mast is 150m high, find the distance between the huts.
2. When the angle of elevation of the sun is 30o, the shadow of a vertical tower is 20m longer than when the elevation of the sun is 60o. Find the height of the tower.
3. An aircraft flies round a triangular course. The first leg is 200km on a bearing of 115o and the second leg is 150km on a bearing of 230o. How long is the third leg of the course and on what bearing must the aircraft fly?
4. A photographer is 350m away from a lion and wants to get closer before he takes a photograph. There is a water-hole in the direct line between the lion and himself, so he moves at an angle of 8o to this line to a better position 200m further on. Calculate his distance from the lion.

***FEEL FREE TO CONTACT ME WHEN NECESSARY*  *#StaySafe***