

ETHIO SCIENCE TUTORIAL CLASS

PACKAGE III GROUP ASSIGNMENT FOR GRADE 12 STUDENTS

MATHEMATICS

Maximum mark: **10%**

STUDENTS

PACKAGE ID NO.

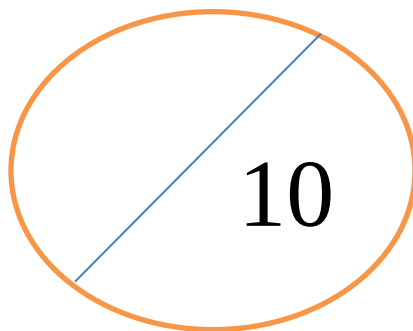
1. _____
2. _____
3. _____
4. _____
5. _____

➤ **Instructions**

- ✓ Only a maximum of 5 students per group!

Subscribe our YouTube channel Ethio-Science Academy

Set by- Yosef Adefris (owner of tutorial class and student in ASTU)



BY STUDENTS FOR STUDENTS

1. Ship A & B depart from the same point at the same time on the course $N60^\circ E$ and $N40^\circ E$ respectively. If the speed of ship A is 20km/hr and the speed of ship B is 30km/hr , what is the distance between the two ships just after 30 minutes of their departure?

(you may take $\cos 40^\circ = 0.77, \cos 20^\circ = 0.94, \sin 20^\circ = 0.34$)

2. In order to measure the height of a tower, suppose a surveyor takes two sightings from a transit 1m high which are positioned d meters apart on the same ground level as in the figure below. If the first measured angle is α and the second is β (see in the figure), then what is the height of the tower (in meter) in terms of α, β and d ?

