Q1/
 What is the use of Theodolite Instrument?
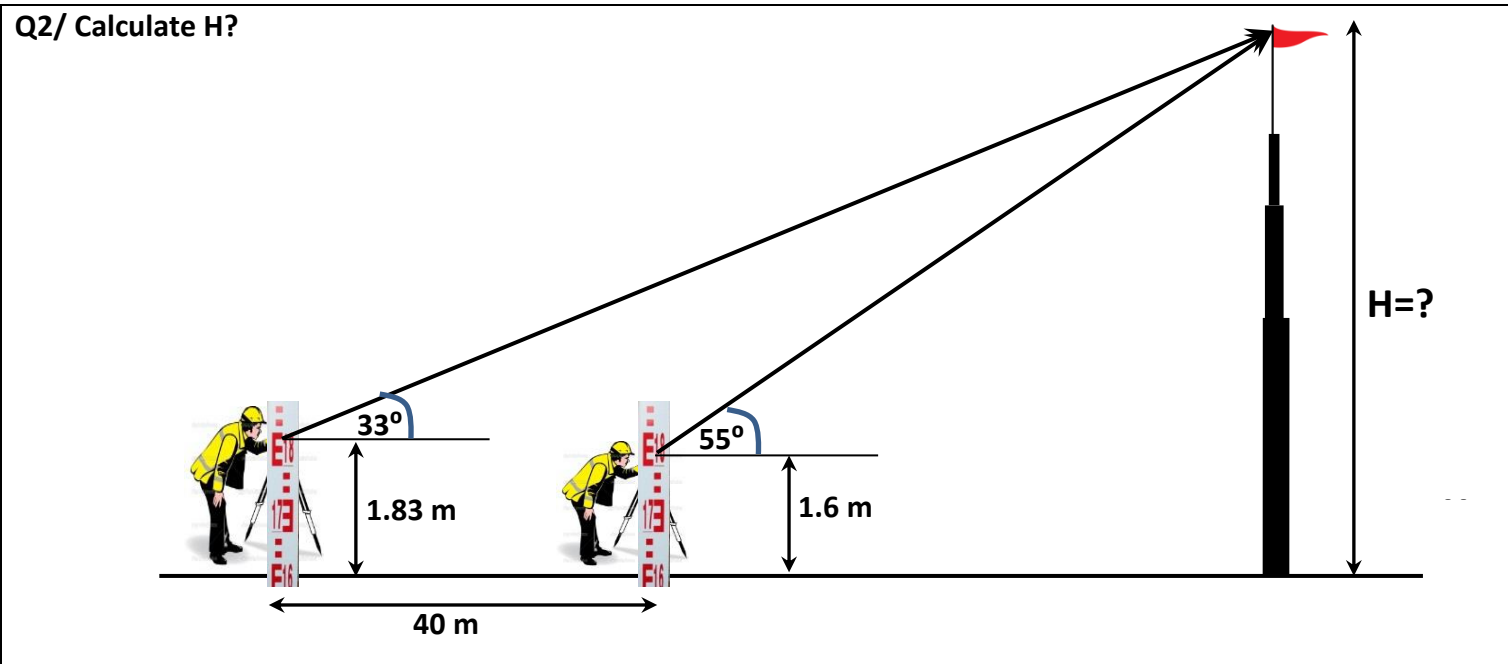
Q2/ Calculate H?

33°

1.83 m

55°

1.6 m

H=?

40 m

Q3/
Calculate the horizontal distance EC?
Given;
  1- **Azimuth BE=120⁰**
  2- **Azimuth BA=140⁰**
  3- **Distance BA=5.5m.**
  4- **Distance BC=6m.**
  5- **Distance BE=5m.**
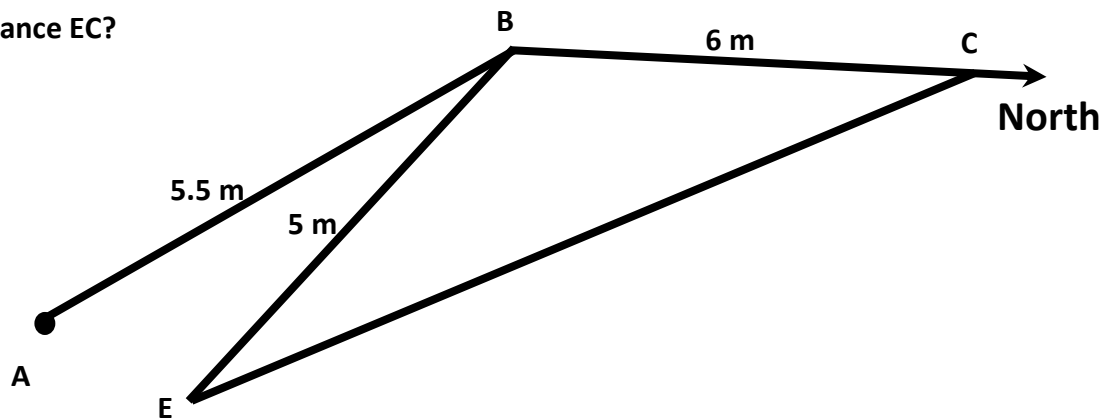
Q4/
 Convert 30 degree to Radian measure?

Q5/

Find The elevation at point E, which is the top of a half circle window?

Given:

1- The elevation at point B=1 m.
2- The elevation at point C=3.86 m.
3- The elevation at point D=5.53 m.
4- The Radius= 5 m.
5- Angle CAB=35⁰
6- Angle DAC=30⁰
7- Angle EAD=25⁰
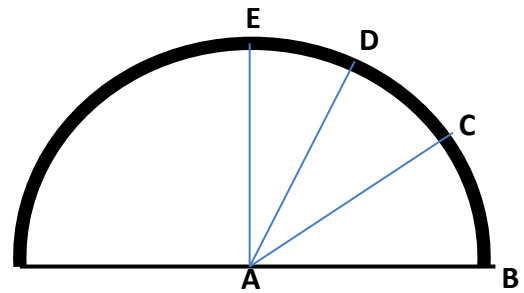
Q6/

**Given the scale 1/500, if the distance at site =127 m, what is the distance at paper in <u>inches</u>?**

Q7/

Calculate the vertical distance H which is the height of the flag.

Given:

1- The reduced level at points (A, B, and C) is (32.831, 31.452, and 30.937 m) respectively.

2- The height of the Theodolite instrument at points A and B is (1.78m, and 1.45m) respectively.

3- The vertical angles between the horizon and the flag for points A and B are (30° and 45°) respectively.
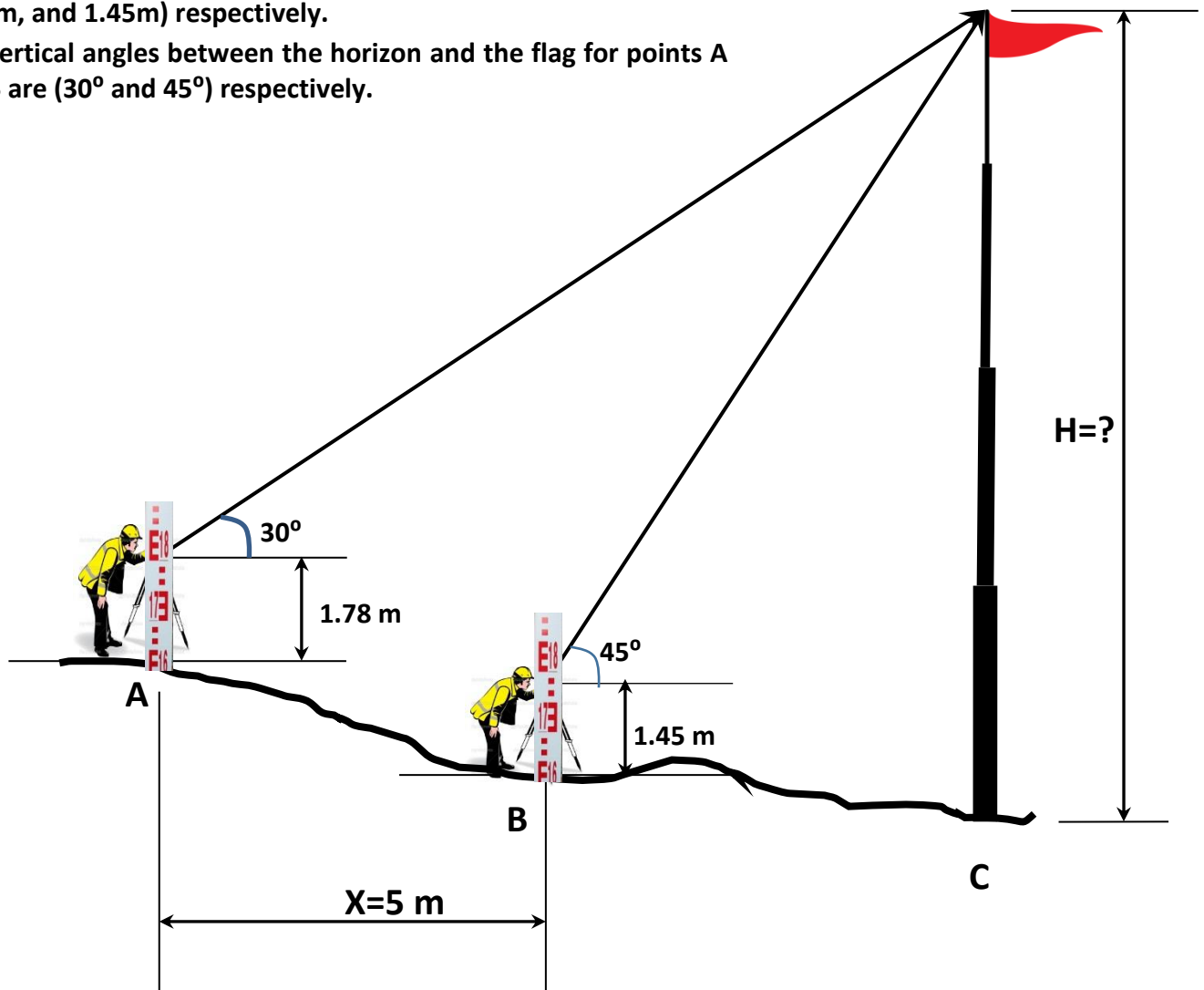
NOTE: The drawing is not to scale.

Answer: When the value of a distance **x=5m**, then the value of H=12.828m. Use this value for checking your solution steps.