Name _____ Name _____ Class _____

Part 3: Lab Report – Parallax

3.1 Exercise 1 (see section 2.1)

Distance between two marks = _____

Distance from the wall = _____

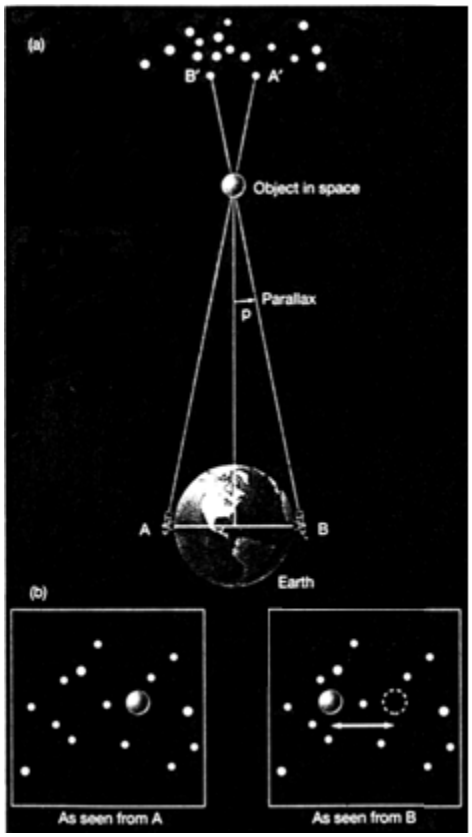
3.2 Exercise 2 (see section 2.2)

If distance AB = 2.7 meters and the angle at B is $\theta = 52^{o}$ calculate (show your math)

Distance to the object (A-tree) = _____

Distance B-tree = _____

3.3 Exercise 3 & 4



Exercise 3:
Suppose that the parallax angle on the figure is 2.8^{o}, what is the distance to the objects in kilometers (show your math)?

parallax angle = _____

Earth Radius (see your text book) = _____

distance to object = _____

Exercise 4:

1. Convert 1" (1 arc-second) into radians.

2. Use the formula "$D_{\backprime} p = 1\,\text{AU}$" to find how many kilometers are in one parsec (Hint: in your text book you will find the value of 1 AU expressed in kilometers).

3. What will be the stellar parallax angle of a star that is 2 parsecs away?

4. A star has a stellar parallax angle of 0.1″. How far away is it?

5. A star is at a distance of 250 parsecs. Its stellar parallax is _____

6. A star has a stellar parallax of 0.025″. Its distance is _____