Homework Ch. 17

1. A satellite that rotates in the same direction as the earth is in a posigrade orbit.

2. The geometric shape of a non-circular orbit is an ellipse.

3. The geocenter is the center of earth’s gravity.

4. The period is the time it takes for a satellite to complete one orbit.

5. When a satellite moves from south to north and crossing the equator the orbit is ascending. When a satellite goes from north to south across the equator, the orbit is descending.

6. Too low of an angle of inclination will cause noise in the signal.

7. A satellite that orbits at the equator at 22,300 mi is in a geosynchronous orbit.

8. Jet thrusters are fired to keep the satellite pointed at earth.

9. The subsatellite point is the point on earth directly below a satellite

Ch. 19

1. True, light is electromagnetic radiation.

2. The optical spectrum is made up of infrared, visible and ultraviolet light.

3. Ultraviolet light has the highest frequency and infrared light has the lowest.

4. Light travels in a straight line.

5. Nanometers (nm), micrometers (μm) and angstrom (Å) are the units to express the wavelength of light.

6. Red has the shortest wavelength at .77 μm and violet has the longest at .4 μm.

7. The wavelength of infrared light is between 1 mm and 1 μm.

8. False, light travels faster in air than in glass or plastic.

9. The index of refraction tells how fast light travels in a medium compared to air.

10. A mirror can be used to change the direction of a light wave.