Physical Geography Worksheet #1 Instructor: McGlade Name\_\_\_\_\_\_\_\_\_\_\_\_

Due January 25

Show all work (except for #1). No credit will be earned if correct calculations are not evident.

1. Identify the latitude of the sub solar point on the following days, no calculation needed (0.5 pts. each)

a. September 22

b. June 22

c. December 22

d. March 21

2. Calculate the solar altitude for the following latitudes for June 22. Assume solar noon. (2 pts. each)

a. Tropic of Cancer

b. Tropic of Capricorn

c. 20º N. latitude

d. Antarctic Circle

3. Calculate the solar altitude for the following latitudes for the September 22 Equinox. Assume solar noon. (2 pts. each)

1. Salem Oregon
2. 66.5º North
3. 66.5 º South
4. The North Pole

4. Assume that the higher the solar altitude, the greater the risk of sunburn. A friend of yours states that on June 22, she was in Brazil at a latitude of 20 degrees S. She claims that the risk of sunburn is greater there than in Oregon (45 N latitude) for the same date. Is your friend correct? Assume solar noon for both locations. (2 pts.)