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

Due January 24

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. March 22

d. December 22

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

a. Tropic of Cancer

b. Tropic of Capricorn

c. 30º N. latitude

d. Arctic Circle

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

1. Salem Oregon
2. 66.5º North
3. 20º South
4. Arctic Circle

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 tropical Brazil at a latitude of 13.5 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. Please show work (2 pts.)