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

**due date in Moodle** – send as cellphone photo to mcgladm@wou.edu, titled “worksheet #1: one image please

No credit will be earned if correct calculations are not shown and mini model of globe is not included on sheet - and, as shown in instructor video instructions, is not marked with latitudes of observer and sub-solar pt.

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 22

2. Calculate solar noon solar altitude for the following latitudes for March 22. (2 pts. each, box around answer)

a. Tropic of Cancer

b. 50º S latitude

c. 65º N. latitude

d. Arctic Circle

3. Calculate solar noon solar altitude for the following latitudes for December 22. (2 pts. each, box around answer)

1. Salem Oregon
2. 70º North
3. 50º South
4. The South 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 23 degrees S. She claims that the risk of sunburn is greater there than in Oregon (45 N latitude) for the same date. Is she correct? Assume solar noon for both locations. (2 pts.)