EES-2510L Homework Assignment #1: Minerals
Due by: 09/12/2018

Name_____ Section_____

The following questions are intended to help you differentiate between similar minerals:

1) Both pyrite and chalcopyrite have a metallic luster, a greenish-black streak, and no cleavage; they are heavy and can be very difficult to distinguish on the basis of color. If no crystals are visible, how would you tell them apart? (1)

2) Magnetite and hematite can both be dark gray to black and look similar. How could you tell them apart if you did not have a magnet? (1)

3) Hornblende and augite commonly are black, have the same hardness, and exhibit two directions of cleavage. They are difficult to distinguish when they occur as small crystals in a rock. What would you look for to tell them apart? (1)

4) Calcite, halite, and fluorite all have perfect cleavages, and they can all be the same color. How would you distinguish among them? (1)

5) Talc and serpentine can be the same color, have similar greasy to pearly lusters, and both can have a greasy feel. How do they differ? (1)

6) If chlorite and biotite occur as small crystals in rocks, it may be difficult to tell them apart. What properties might be helpful? (1)

7) What single property is most useful for distinguishing between potassium feldspar and plagioclase? (1)

8) Choose a mineral that interests you and in a few sentences answer the following: Why did you choose this mineral? Describe the mineral (Color variations, luster, hardness, etc.). What applications is this mineral used for; is it used in concrete, drywall, makeup etc.? (3)

Questions were taken directly from page 33 of the *Introductory Manual for Physical Geology, 8th edition* by Charles E. Jones and Norris W. Jones.