**pGLO post-lab questions (answer USING COMPLETE SENTENCES in your lab notebook)**

1. From your results, can you tell if these bacteria are ampicillin resistant by looking at them on the LB plate?  Explain your answer.

1. How would you change the bacteria’s environment-the plate they are growing on-to best tell if they are ampicillin resistant?

1. Very often an organism’s traits are caused by a combination of its genes and its environment.  Think about the green color you saw in the genetically transformed bacteria:

* 1. What two factors must be present in the bacteria’s environment for you to see the green color?  (Hint:   one factor is in the plate and the other factor is in how you look at the bacteria).

* 1. What do you think each of the two environmental factors you listed above are doing to cause the genetically transformed bacteria to green?

* 1. What advantage would there for an organism to be able to turn on or off particular genes in response to a certain conditions.