**Moles Quiz Makeup – Honors**

Answer the following mole-related questions. Remember to show your work for partial credit!

1. Mynah birds are known to be attracted to mirrors and other shiny objects. A particularly industrious mynah bird that I didn’t just make up was able to collect an average of 40 gold rings a day. Each ring weighed about 5.0 grams. Using this info:
2. What is the combined weight of all of the gold rings? (1 pt)
3. How many moles of gold does this represent? (5 pt)
4. A man named Todd Robbins claims to have eaten 5000 light bulbs during a career of doing idiotic stuff on stage. Given that each light bulb contains 1.9 grams of glass…
5. How many grams of glass has Todd Robbins eaten? (1 pt)
6. How many moles of glass has he eaten? The formula of glass is SiO2. (5 pt)
7. Define the word “molar mass” (1 pt):
8. Using reasonable estimates, determine how many moles of glass are present in the windows at St. John’s. Again, the chemical name of glass is silicon dioxide. (And to keep you from getting too nervous, just about any assumption you make will be fine, provided it’s not waaaaaay too out of hand. Write down all of your estimated values so I know how to grade this.) (10 pt)
9. What is the molar mass of a compound if 85 grams of the compound is equal to 0.65 moles? (5 pt)