**Nuclear Chemistry Practice Sheet**

*Using your knowledge of nuclear chemistry, write the equations for the following processes:*

1) The alpha decay of iridium-174

2) The beta decay of platinum-199

3) Positron emission from sulfur-31

4) Krypton-76 undergoes electron capture

5) Write the symbols for an alpha particle, beta particle, gamma ray, and positron.

6) If the half-life for the radioactive decay of zirconium-84 is 26 minutes and I start with a 175 gram sample, how much will be left over after 104 minutes?

7) Why is it difficult to make a fusion reaction occur?