

# Assignment 4

Please type your responses into a word document, and submit that on UNM Learn. Be sure to number your responses 1, 2(a), etc. so I know which question you're answering, and **show your work** for all questions. If you get stuck, post a question on the forums. Chances are you're not the only one!

1. (25 points) Refer to the NASA global warming link presented in the ch 8 notes for the following.
  - (a) (9 points) List and very briefly summarize the nine bits of evidence presented for global warming.
  - (b) (8 points) List eight future effects resulting from global warming, explaining each very briefly.
  - (c) (3 points) What percentage of climate scientists are in agreement that the climate is warming due to human activity?
  - (d) (5 points) Name and briefly describe five present, experimentally verifiable effect of global warming. Be quantitative (use numbers) in your description.
2. (20 points) A rock that was known to be made completely of Uranium-238 (with a half-life of 4.47 billion years!) is observed to be composed of 12.5% Uranium-238, the rest has decayed to Lead-206. How old is this rock?
3. (15 points) Explain the greenhouse effect. How does the atmosphere allow the Sun's energy in, but not back out? How does global warming affect the greenhouse effect?
4. (15 points) Looking back over the previous homeworks and lecture notes, post a question on the discussion forums on something you could understand better, in the correct forum. Then, comment on someone else's question (you don't have to give the answer if you don't know it, you can follow up with another question). Copy and paste (a) your question, and (b) your comment on someone else's question for this question.