

AOS 100/101
Spring 2018

HOMework #1
(Due Fri. February 2)

Please provide concise, grammatically correct, neatly written answers to the following questions. All questions can be answered in, at most, a few sentences. Don't forget to write your name on the paper!!!

NAME:

- 1) If life had never evolved on Earth how would the chemical composition of the atmosphere be different than it is today? Explain your answer with reference to two important chemicals that are found in our atmosphere.
(10 pts)

- 2) You observe that a tree is shedding small twigs and branches in a 20 m s^{-1} (meters per second) wind on a fall day. Someone tells you that such a tree can be *blown down* if the force of the wind increases by a multiple of 3. At approximately what wind speed would that occur? Explain.
(10 pts)

- 3) You are camping in the Rocky Mountains at a high elevation site where the pressure is constant. Is it easier to breathe while you sleep on a warm night or a cold night at your site? Explain.
(15 pts)