1. What is the stack pointer? How is the stack pointer used, and how do you initialize it? Provide pseudocode (not actual assembly code) that illustrates how to initialize the stack pointer.
The stack pointer points to the address that is below (in number) to the top of the stack. This is typically at the end of memory.
Set mpr to high ramend
Set stackptr to mpr
Set mpr to low ramend
set stackptr mpr

2. What does the AVR instruction LPM do, and how do you use it? Provide pseudocode (not actual assembly code) that shows how to setup and use the LPM instruction.
Loads a value from program memory. This is used to conserve memory spaces and confuse students. There is no real set up, just pick a destination register and an address that contains the value you want
LMP rd, EA

3. Take a look at the definition file m128def.inc (This file can be found in the Solution Explorer → Dependencies folder in Atmel Studio, assuming you have an Assembler project open and you have already built an assembly program that includes this definition file. Two good examples of such a project would be your Lab 1 and Lab 3 projects.) What is contained within this definition file? What are some of the benefits of using a definition file like this? Please be specific, and give a couple examples if possible
The file contains all the defines .equ and marcos for the 128 chip. It basically builds the virtual memory structures that the simulator uses. All of the I/O ports and supporting registers are defined there. Everything in the chip simulator is defined there.