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PreLab 4

1) The stack is a collection of memory used for storing temporary data – the stack pointer points to the top of the stack. It can be initialized like this:
   R16 gets low byte of the last sram address
   Stack pointer low byte gets R16
   R16 gets high byte of the last sram address
   Stack pointer high byte gets R16
2) LPM, or "Load Program Memory" loads a value from memory using the Z register and stores it in the supplied register. For example:
   Z high byte gets high byte of the address containing my data
   Z low byte gets the low byte of the address containing my data
   LPM r16, Z (aka R16 gets the memory pointed to by Z)
3) This definition file is simply a giant list of constants which we use in order to make code more readable (such as PORTB => 0x18). This means that in our assembly code we may use English words to make our code simple and easy to follow, rather than obscure constants. It also reduces the possibility of a type causing a bug, for example, typing PIRTB will result in a compilation error that is easy to find, while typing 0x17 would not result in a compilation error but rather would result in subtly incorrect behavior.