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| BLG351E Experiment 4 Part 2 “Stack & Subroutines”  REPORT | CRN |  |
| Group |  |
| Name #1 |  |
| Name #2 |  |
| Q2) (30 pts.) What is the maximum depth of the stack for recursive function Dot(A,B,i,N) given in Part 3? How?(Note that the function requires 4 variables & all variables are passed through stack. Hint: Result should be in terms of N.) | | |
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| Q3) (30 pts.) Why did you increase the stack pointer twice to reach each parameter? (e.g. 2(SP), 4(SP)) | | |
| Since the memory organization of MSP430 is designed such that each memory address holds 8 bits, to treat the memory as units of 16 bits, addresses must be grouped by 2. That is why it is needed to move in the memory by 2 units while reading/writing 16 bits data from/to the memory. Stack push and pop instructions increase/decrease the stack pointer by 2, therefore we must comply with this rule. | | |