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ECE 367 - Homework #3

1. Data type size (in bytes):
 - a. Char - 1
 - b. Short - 2
 - c. Signed short int - 2
 - d. Int - 2
 - e. Long - 4
 - f. Signed long int - 4
 - g. Long long - 8
 - h. Unsigned long long - 8
 - i. Float - 4
 - j. Double - 8
2. Status of LR and Stack at instruction 0x08000120:
 - a. LR = 0x08000118
 - b. Stack:
 - i. 0x08000118
 - ii. 0x08000130
 - iii. 0x08000108
3. Location of parameters and return values:
 - a. int add2(int a, int b);
 - i. $a \rightarrow r0$
 - ii. $b \rightarrow r1$
 - iii. return $\rightarrow r0$
 - b. int add3(int a, int b, int c);
 - i. $a \rightarrow r0$
 - ii. $b \rightarrow r1$
 - iii. $c \rightarrow r2$
 - iv. return $\rightarrow r0$
 - c. unsigned fibonacci(unsigned n);
 - i. $n \rightarrow r0$
 - ii. return $\rightarrow r0$
 - d. short strcmp(char *str1, char *str2);
 - i. $str1 \rightarrow r0$
 - ii. $str2 \rightarrow r1$
 - iii. return $\rightarrow r0$
 - e. uint64_t sumOfArray(uint32_t X[], int N);
 - i. $X \rightarrow r0$
 - ii. $N \rightarrow r1$
 - iii. return $\rightarrow r0$ and $r1$ (64-bit return value)