

Exam 2 review, show Exam2thoughts**1) subroutines**

understand what is passed in as input
 8-bit numbers in registers A, B
 16-bit numbers in registers D, X, Y
 pointers to array/string in registers X, Y
 understand what is returned as output
 8-bit numbers in registers A, B
 16-bit numbers in registers D, X, Y
 pointers to array/string in registers X, Y
 ends in **rts**

2) arrays and strings

if 8-bit then read/write data using RegA or RegB
 increment pointer by 1 after each access
 if 16-bit then read/write data using RegD
 increment pointer by 2 after each access
 how is the length determined?
 Fixed length (known at design time)
 First element is length
 Last element is terminator code

3) programming techniques

if-then
 if-then-else
 for-loop
 global variables
 adda addd suba subd sex clra mul idiv idivs

4) test taking strategies

understand the relationship between my program and yours
 my program is the main program
 my program does ALL the I/O, not yours
 my program outputs to the SCI, not yours
 you write 1, 2, or 3 subroutines that I will call
 my program calls your subroutines many times,
 my program passes into yours some data, then
 gives you a score based on your return parameters
 understand the problem
 Run an Exam2y and show the test data
 look for input data my program feeds to yours
 find it at the top of ROM
 comments give results your program should return
 don't access this data directly, I will pass you a pointer
 set a breakpoint at start of your program
 add registers to ViewBox and single step
 solve special cases last
 worry about cases explicitly required and tested
 don't worry about cases that are not tested

6) Warning (you will know the exact input data)

DO NOT TRY TO CHEAT THE SYSTEM
ZERO POINTS
 Simply returning outputs in the expected order
YOUR BEST EFFORT IS NOT ALWAYS YOUR LAST
 Show how to Roll Back
 Allows you to turn in your best effort
 Don't just try maximize score,
 Rather, give effort to both score and style