

EE319K Lecture 9 in class worksheet

Question 1. Write assembly code to add register A to register B, putting the sum in A.

Question 2. Write assembly code to add register D to register Y, putting the sum in Y.

Question 3. Assume we have a 16-bit counter defined in RAM (and initialized).

Counter rmb 2

Write assembly code that adds 1 to this counter.

Question 4. Prove the mul instruction can't overflow.

Question 5. Give a single mathematical equation relating the dividend, divisor, quotient, and remainder. This equation gives a unique solution as long as you assume the remainder is strictly less than the divisor.

Question 6. Let N and M be 8-bit unsigned locations. Write assembly code to implement $M=(7*N)/31$.

Question 7. Write friendly code that makes Port T bit 0 an output.

Question 8. Write friendly code makes PT0 low.