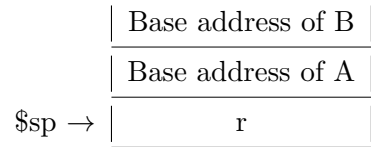**Question 4 (15 points):** Assume that p, q, i, j are integers and that their values are stored in $s0, $s1, $s2 and $s3, respectively. Assume that A and B are arrays of integers. Assume that r is a pointer declared as: `int *r;`

Assume that r, the base address of array A, and the base address of array B are all in the stack frame of the current function, as shown below.

Base address of B	
Base address of A	
$sp → r	

For each of the C statements below, give the translation into MIPS. Do not use pseudoinstructions in your code. Clearly label which MIPS instructions are for which statement. You may use the back of this page if you require more space.

a) `q = *r`

b) `B[i] = A[j]`

c) `p = q + A[B[j]]`