LE11.2

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LE11.2.1 Statements

0 points possible (ungraded)

Hand-compile the following C fragments into Beta assembly language. You can also assume that all variables and arrays are C integers, i.e., 32-bit values, and that the necessary storage allocation for each variable or array has been done and that a UASM label has been defined that indicates the first storage location for that variable or array.

There's no automated checking for this problem. Just write your answer out on a piece of paper and then compare it with the solutions to see how you did!

(A) `if (b <= 10) c = 3;`

(B)

```
if (b > c) b = b + 1;
else {
  temp = c;    // interchange b and c
  c = b;
  b = temp;
}
```

(C)

```
while (exp > 0) {
  b = b*b;
  exp = exp - 1;
}
```

(D)

```
sum = 0;
for (i = 0; i < 10; i = i + 1) sum = sum + a[i];
```

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? Statement (B) solution. — 2
Why do we use LD(b, r0) again after CMPLT instruction? Is there any modification in r0 register? Thanks for reply.

[STAFF] error in LE11.2.1 Statements (C)? — 7
Hi, I think the line: CMPLT(r1,r0,r0) // compute 0 < exp should read: CMPLE(r1,r0,r0) // compute 0 <= exp or alternatively (and more in...