2.30 [12] <§§2.3, 2.6, 2.9> The following code fragment processes two arrays and produces an important value in register $v0. Assume that each array consists of 2500 words indexed 0 through 2499, that the base addresses of the arrays are stored in $a0 and $a1 respectively, and their sizes (2500) are stored in $a2 and $a3, respectively. Add comments to the code and describe in one sentence what this code does. Specifically, what will be returned in $v0?

```
  sll $a2, $a2, 2
  sll $a3, $a3, 2
  add $v0, $zero, $zero
  add $t0, $zero, $zero
  outer: add $t4, $a0, $t0

  lw $t4, 0($t4)
  add $t1, $zero, $zero
  inner: add $t3, $a1, $t1
  lw $t3, 0($t3)
  bne $t3, $t4, skip
  addi $v0, $v0, 1
  skip: addi$ $t1, $t1, 4
  bne $t1, $a3, inner
  addi $t0, $t0, 4
  bne $t0, $a2, outer
```