AP® COMPUTER SCIENCE A
2015 SCORING GUIDELINES

Question 1: Diverse Array

Part (a)	`arraySum`	**2 points**

Intent: *Compute and return sum of elements in 1D array* `arr`, *passed as parameter*

+1 Accesses all elements of `arr`, (*no bounds errors on* `arr`)

+1 Initializes, computes, and returns sum of elements

Part (b)	`rowSums`	**4 points**

Intent: *Compute and return 1D array containing sums of each row in the 2D array* `arr2D`, *passed as parameter*

+1 Constructs correctly-sized 1D array of ints

+1 Accesses all rows in `arr2D` (*no bounds errors on* `arr2D`)

+1 Computes sum of row in `arr2D` using `arraySum` and assigns to element in 1D array

+1 Returns 1D array where kth element is computed sum of corresponding row in 2D array for all rows

Part (c)	`isDiverse`	**3 points**

Intent: *Determine whether* `arr2D`, *passed as parameter, is diverse*

+1 Computes and uses array of row sums from `arr2D` using `rowSums`

+1 Compare all and only pairs of row sums for equality (*No bounds errors on row sums array; point not awarded if no adjustment when compares any row sum with itself*)

+1 Returns `true` if all compared row sums are different and `false` otherwise (*point not awarded for immediate return*)

Question-Specific Penalties

-1 (g) Uses `getLength/getSize` for array size

-1 (y) Destruction of persistent data (`arr` *or* `arr2D`)