

AP[®] COMPUTER SCIENCE A

2013 SCORING GUIDELINES

Question 4: SkyView

Part (a)	SkyView constructor	5 points
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Intent: *Construct SkyView object from 1D array of scan data*

- +1** Constructs correctly-sized 2D array of doubles and assigns to instance variable `view`
- +1** Initializes at least one element of `view` with value from element of `scanned` (*must be in context of loop*)
- +1** Places consecutive values from `scanned` into at least one row of `view` in original order
- +1** Places consecutive values from `scanned` into at least one row of `view` in reverse order
- +1** On exit: all elements of `view` have correct values (*no bounds errors on `view` or `scanned`*)

Part (b)	<code>getAverage</code>	4 points
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Intent: *Compute and return average of rectangular section of `view`, specified by parameters*

- +1** Declares and initializes a `double` accumulator
- +1** Adds all and only necessary values from `view` to accumulator (*no bounds errors*)
- +1** Computes average of specified rectangular section
- +1** Returns the computed average (*computation must involve `view`*)

Question-Specific Penalties

- 2** (v) Consistently uses incorrect array name instead of `view/scanned`