

CS 116: Homework 1

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3.a.

Description of the result:

Get all the numbers $= 5 + 3n$ between 5 to 15 where n start from 0 and store it into array **b**.

b.

Description of the result:

Get all the numbers that is larger than 1850 between 1501 to 2000 and store it into array **h**.

c.

Description of the result:

Calculate the sum of the array **x** where all its ten entries are both has a number 22 and store it to variable **y**.

d.

Description of the result:

Flip the order of array **a** from (1 to 100) to (100 to 10) and store it into array **b**.

5.



In the result of set 1, most of the background of the images are blue and many images has a body of a ship placed on its middle bottom. As a result, the average image has a blue color background

and exist a body of a ship in its middle bottom. However, since it is inconsistent when placing the sail in each images, sail has the most ghosting effect in the average image.



In the result of set 2, all the images have white space in left and right edges. Therefore, there is also some white space in those edges in the average image. On the other hand, most of the image has plane land a green lawn. As a result, the average image also has a green lawn which is landed by a plane. Since a plane is placed in its middle of the every image in the set, we can easily see a plane-like object in the middle of the averaged image.

6.



When I apply the demosaicing algorithm for reconstructing the image, I also need to apply filter several filters to the original image, so convolution is basically involved. As a result, there is a loss of resolution such as detail and sharpness in the reconstructed image. Therefore, the reconstructed image is darker than the JPG image.