Take Home Case 4

<u>To:</u> Thoroughly Rebuked
<u>From:</u> MathWorks Team
<u>CC:</u>
<u>Subject:</u> Simplifying loops and vectors

For this case, I think you are not seeing some of the repetition in the vectors that are being used. You are defining 2 vectors n and a, which are identical, and using n to index a. This is entirely unnecessary. They are also initiating a value for s which is unnecessary for this since a loop is not even needed here. The vector b is equal to the reverse of vector a and shifted down 1 (because the a variable is started at 1). This sum can therefore be created without having to instance each of these vectors and put them into a loop. The following example code is included to provide the same result as what you have provided but can be changed just like vector a and still function.

All these steps can be seen in the code attached below. I have also included sources for the relevant MATLAB documentation. For reference, documentation for any function can be looked up by typing "doc <function>" into the command window.

Thank you for your patience and happy coding!

-The MathWorks Team

Sources Used:

1. MathWorks. (2021). Sum (r2020b). Retrieved March 4, 2021
   https://www.mathworks.com/help/matlab/ref/sum.html
2. MathWorks. (2021). Fliplr (r2020b). Retrieved March 4, 2021
   https://www.mathworks.com/help/matlab/ref/fliplr.html