

CS 100
Fall 2015
Lab #2

1. Create a vector of the even whole numbers between 31 and 75.

2. Let $x = [2 \ 5 \ 1 \ 6]$.

- a. Add 16 to each element
- b. Add 3 to just the odd-index elements
- c. Compute the square root of each element
- d. Compute the square of each element

3. Let $x = [3 \ 2 \ 6 \ 8]'$ and $y = [4 \ 1 \ 3 \ 5]'$ (NB. x and y should be column vectors).

- a. Add the sum of the elements in x to y
- b. Raise each element of x to the power specified by the corresponding element in y .
- c. Divide each element of y by the corresponding element in x
- d. Multiply each element in x by the corresponding element in y , calling the result " z ".
- e. Add up the elements in z and assign the result to a variable called " w ".
- f. Compute $x'y - w$ and interpret the result

4. Create a vector x with the elements ...

- a. 2, 4, 6, 8, ...
- b. 10, 8, 6, 4, 2, 0, -2, -4
- c. 1, $1/2$, $1/3$, $1/4$, $1/5$, ...
- d. 0, $1/2$, $2/3$, $3/4$, $4/5$, ...

5. Create a vector x with the elements,

$$x_n = (-1)^{n+1}/(2n-1)$$

Add up the elements of the version of this vector that has 100 elements.