

# MTH 337, Sample Quiz 4

## Fall 2020

You will have **15 minutes** to take the actual quiz in Gradescope. The quiz will start exactly **5 minutes** after the start of class, 9:15 AM, and will close at 9:30 AM.

1. complete the following table.

Color	RGB definition
Red	(0,1,0) (1,0,1)
Cyan	

2. Write a function that counts the number of vowels in a given sentence. For example, given the sentence

‘This is a sentence.’,

your function should return the number 6.

3. Describe in words what the command `np.transpose(A, (1,0,2))` does.
4. Use the array

$$A = \begin{bmatrix} 1 & 2 \\ 3 & 4 \\ 5 & 6 \end{bmatrix}$$

to build the array

$$B = \left[ \begin{array}{cc|cc|c} 1 & 2 & 1 & 2 & 1 \\ 3 & 4 & 3 & 4 & 3 \\ 5 & 6 & 5 & 6 & 5 \\ \hline 1 & 2 & 1 & 2 & 1 \\ 3 & 4 & 3 & 4 & 3 \end{array} \right].$$