

# MTH 337 Intro to Scientific computing

## SAMPLE QUIZ #7

Spring 2021

Instructor: Simone Cassani

The Sample Quiz is for you to practice for the quiz that will be at the end of class on Monday on Gradescope.

- (1) Write the code that creates a `numpy` array `pippo` containing all the integers from 1 to 40, and reshape it to shape  $4 \times 10$
- (2) Set all the elements in the first row of `pippo` equal to 7
- (3) Set all the elements in the third column of `pippo` equal to 0
- (4) Set a  $2 \times 2$  square in the center of the array equal to

1	2
3	4

- (5) Create a boolean array that is `True` where the elements of `pippo` are even and greater than 4
- (6) Create a boolean array that is `True` where the elements of `pippo` are odd or a multiple of 7
- (7) Set all the elements of `pippo` that are even equal to 300
- (8) Write the code that creates a  $3 \times 4$  array `a` with numbers from 0 to 11. Use boolean indices to set all of the entries of `a`, that are less than 2 or greater than 8, equal to 0.
- (9) Create a  $5 \times 5$  `numpy` array of ones