

MTH 337 Intro to Scientific computing

SAMPLE QUIZ #5

Spring 2021

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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 to generate the list of the halves of the first 100 integers. Use list comprehension
- (2) Suppose the list `plist` contains the first 500 prime numbers. Using list comprehension produce the list `loglist` of the logarithm of the numbers in `plist`
- (3) Suppose the list `plist` contains the first 500 prime numbers. Using list comprehension produce the list `mylist` of the numbers in `plist` smaller than 300 that are odd
- (4) Write code that creates a plot of the function

$$f(x) = x^2 + 1 \text{ for } 0 \leq x \leq 1$$

Use at least 100 points

- (5) Write code that creates a plot of the function

$$f(x) = 2^x \text{ for } 1 \leq x \leq 2$$

Use at least 100 points