MATH 102 – SECTION 07 – SPRING 2024– QUIZ 2

Name: ....

Student ID: ....

PROBLEMS

Q1) (4 points) Find all positive values of c for which the following series converges:

$$\sum_{n=1}^{\infty} \left(\sin\left(\frac{1}{n} \right) \right)^c.$$

Q2) (6 points) Determine whether the series is absolutely convergent, conditionally convergent, or divergent:

$$\sum_{n=3}^{\infty} \frac{(-1)^n \ln n}{n}.$$