

Chapter 9.3: Convergence of Series

Calculus II

Spring 2021

College of the Atlantic

1. Write out the following sums:

$$\sum_{n=1}^4 2n . \quad (1)$$

$$\sum_{n=1}^6 7 . \quad (2)$$

$$\sum_{k=1}^4 2k . \quad (3)$$

$$\sum_{n=1}^3 nx^n . \quad (4)$$

$$2 \sum_{k=1}^4 k . \quad (5)$$

$$\sum_{n=1}^4 \frac{(-1)^{n+1} x^n}{n!} . \quad (6)$$

2. Write the following sums using Σ notation:

$$1 + \frac{1}{2} + \frac{1}{3} + \frac{1}{4} + \cdots \quad (7)$$

$$1 - \frac{1}{2} + \frac{1}{3} - \frac{1}{4} + \cdots \quad (8)$$

$$1 + \frac{1}{2} + \frac{1}{6} + \frac{1}{24} + \cdots \quad (9)$$