CHAPTER 2 FINAL REVIEW

1) What is the sum of all numbers from 1 to 200?

2) Use Euclid’s method to find the sum.

\[ 4^3 + 4^4 + \ldots + 4^{10} \]

3) Evaluate each sum.

a) \[ \sum_{k=2}^{40} 5 - 2k \]

b) \[ \sum_{k=2}^{7} 2(3)^k \]

4) Given the arithmetic sequence 2, 5, 8, … Find the 50th term.

5) Given the arithmetic series -5 + (-1) + 3 + … Find the sum of the first 100 terms.

6) Given the geometric sequence -2, -6, -18, … Find the 15th term.

7) Given the geometric series 1 + 4 + 16 + … Find the sum of the first 10 terms.

8) Using the Pascal’s Triangle, find \( \binom{7}{4} \)

9) Expand. \((3 + 2x)^4\)

10) Expand. \((x - 3y)^3\) Then find the coefficient of \(x^2y\)