

**Associate Degree 2024 – 2025 First Semester  
CCMA4002 Linear Algebra**

# Assignment One

**Due Date: 3 October 2024 (Thursday)**

**Name :** \_\_\_\_\_

**Class : CL07**

**Student Number :** \_\_\_\_\_

1. (a) Prove by mathematical induction that  $5^n + 2(11^n)$  is divisible by 3 for all positive integers  $n$ .  
(b) Is  $5(25^{16}) + 22(11^{32})$  divisible by 3? Explain your answer by using (a).

[illegible]

