MATH221 – Mathematics for Computer Science – Autumn 2018

Assignment Two Answers

**Question 1:**

**a)**

Given

is any of

is not unique because it’s residue class has more than one element.

**b)**

Given

Given

Proof by contradiction:

is an even number,

is an odd number,

**Question 2:**

**a)**

**b)**

**c)**

**d)**

**Question 3:**

To find the coefficient of , let .

**Question 4:**

**a)**

Given

Let .

**Reflexive**

If .

**Symmetric**

If , then .

**Transitive**

Suppose , then .

If .

Since , then

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**Equivalence Classes**

**b)**

Given

Let .

is not an equivalence relation as it is not transitive.