

UNIVERSITY OF ZAMBIA

SCHOOL OF NATURAL SCIENCES

CSC2901 – Discrete Structures

Quiz III

Duration 45 Minutes

1. Given two integers $a = 20$ and $b = 17$.

a. Find two integers m and n such that

$$\gcd(20, 17) = am + bn$$

b. What is the inverse of 17 ($\text{mod } 20$)

c. Hence, or otherwise, solve for x , if possible, in the following congruence

$$17x \equiv 15(\text{mod } 20)$$