

Fall 2016 COT 3100 Section 1 Quiz #2

Name: _____

Lab Section: 11 12 13 18 19 21 22

1) (10 pts) Find all ordered pairs of integers (x, y) such that $131x + 58y = 4$.

2) (5 pts) Prove or disprove: Let a , b , c and d be arbitrary positive integers. If $a \mid b$ and $c \mid d$, then $ab \mid (c+d)$.

3) (5 pts) Let $n = 2^3 3^5 7^2$ and $m = 2^2 3^7 5^3$. Find $\gcd(n, m)$ and $\text{lcm}(n, m)$ in prime factorized form.

4) (5 pts) Using Fermat's Theorem, determine the remainder when 17^{122} is divided by 61.