

Number Theory Warm-up

1. What is SFFT (Simon's Favorite Factoring Trick)? Use it to find all non-negative integer solutions (a, b) to $ab + a + b = 3$.

2. What does it mean for two numbers to be coprime? Tell if the following numbers are coprime:
 - i. 2, 3
 - ii. 6, 8
 - iii. 1, 9
 - iv. 0, 5

3. What is the euclidean algorithm for finding the GCD of two numbers? How can you use this to find the LCM?