

H.W

1. Determine each of the following greatest common divisors. Which of the pairs are relatively prime?

- $\text{gcd}(6, 15)$
- $\text{gcd}(8, 17)$.
- $\text{gcd}(24, 138)$.
- $\text{gcd}(12378, 3054)$.

2. Find the multiplicative inverse of 37 modulo 3120.

3. Does 24 have a multiplicative inverse modulo 138 Explain.

4. What integers modulo 16 have multiplicative inverses? Determine the inverses.