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CS 135 HW 6

I pledge my honor that I have abided by the Stevens Honor System.

Section 4.1

1. Because a|c and b|d, the laws of multiplication state that a \* b | c \* d which can be written as ab|cd.
2. 1. -111 div 99 = -1  
      -111 mod 99 = -12
   2. -9999 div 101 = -99  
      -9999 mod 101 = 0
   3. 10299 div 999 = 10  
      10299 mod 999 = 309

Section 4.2

1. 1. 1 0100 0001
   2. 11 1111 1111
2. 1. 27

Section 4.3

1. 1. 3 \* 13
   2. 34
2. 1, 5, 7, and 11 are relatively prime to 12
3. 1. Yes
   2. No, gcd(14, 21) returns 7
   3. Yes
5. gcd(123, 277)  
   277=123\*2 +31

123=31\*3 + 30  
31=30\*1 +1

Section 4.5

1. 1. 58
   2. 60
   3. 52
   4. 3
2. 3, 6, 4, 3, …

Section 4.6

1. 18 19 14 15 15 14 11 11 20 19 8 14 13
   1. 22 23 18 19 19 18 15 15 24 23 12 18 17  
      WXST TSPPYXMSR
2. 16 17 12 13 13 12 9 9 18 17 6 12 11  
   QRMN NMJJSRGML