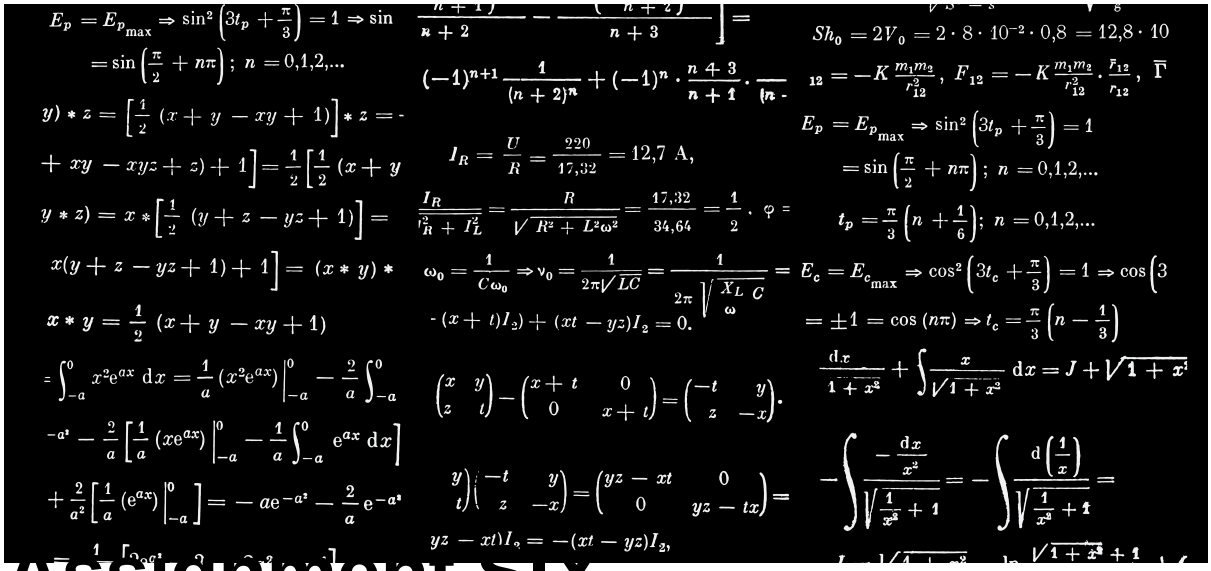

Assignment SIX

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1. **Does 17 divide each of these numbers?**
   a) 68
   b) 84

   a) 68 / 17 = 4 “Yes, 17 can divide”

   b) 84 / 17 = 4.94 “No, it can’t”

2. **Suppose that a and b are integers, a ≡ 4 (mod13), and b ≡ 9 (mod 13). Find the integer c with**
   0 ≤ c ≤ 12 such that c ≡ 9a (mod 13).

a = 13k + 4

b = 13m + 9

c = 13n + 9a

at k = 0 **then,** a = 4

c = 13n + 9a

c = 13n + 9*4

c = 36 mod 13

c = 10