Modular Math

When we divide two integers we will have an equation that looks like the following:

13/5 = 2 + 3/5, where 3 is the remainder. If we throw away the quotient 2, we have only the remainder 3 This operator called the modulo operator (abbreviated as mod): 13 mod 5 = 3. 5 is called the *modulus*. We say that 13 modulo 5 is equal to 3.

For example, a clock with the 12 replaced by a 0 would be the circle for a modulus of 12. If the hour arm starts at 0 hours, after 113 hours, it will land on 5: 113 mod 12 = 5. It is 5:00 am.

Exercises: Complete the following modular math:

113 mod 1=

113 mod 2 =

113 mod 3 =

113 mod 4 =

113 mod 5 =

2017 mod 60 =

2017 mod 2 =

2017 mod 5 =

2017 mod 11 =

2017 mod 7 =

9^{2017} mod 5 =