**Homework Assignments:**

[*https://www.maa.org/sites/default/files/images/upload\_library/46/Dunham-JTG/JTG-Problems-1-162-Convergence.pdf*](https://www.maa.org/sites/default/files/images/upload_library/46/Dunham-JTG/JTG-Problems-1-162-Convergence.pdf)

**Homework 1:** Chapter 1: 1, 3, 4, 5, read Epilogue Chapter 1: 7, 8, 11, 13

**Homework 2:** Chapter 2-3: 14, 16, 17, Prove Prop I.41 (EC), 20, 22, 26, 28, 29(EC), 36, 37, 43, 45, 47, 49, Prove Prop IX.36 (perfect numbers), 52

**Homework 3:** Chapter 4: 56, 58, 59-62, 65

**Homework 4:** Chapter 5, Diophantus, al- Khwarizmi, Bhaskara: 68, 69, 72, 74,

Prove, there is an integer solution c, for integers a,b -- ax+by=c if and only if c is a multiple of the gcd(a,b) (Diophantine)

Solve for numbers y, z, where y+z= 11, and yz=18, the way Diophantus would have in 200AD.

21 (Bhaskara)

**Homework 5:** Chapter 6, Mersenne: 76, 78, 80, 85, 89,

Prove “If is prime, then n is prime” (Mersenne)

**Homework 6:** Chapter 7: 92, 94, 95, 96(EC), 97, 98

**Homework 7:** Chapter 8: 101-105

**Homework 8:** Chapter 9-10: 106-108, 110, 113, 114, 116, 119, 121, 123, 146(EC), 147(EC -- type should say #146)

Prove the converse of the Euclid-Euler theorem.

**Exam Assignments:**

**Exam 1:** Chapter 1, 2, 3,

**Exam 2:** Chapter 4, 5, 6, Diophantus, al-Khwarizmi, Bhaskara, Mersenne

**Final:** Comprehensive, Chapter 1-10/11, All Pop Ups