

**Mathematics 411
Group Assignments*
Autumn 2017**

*=subject to change

Assignment:	HW #1	HW #2	HW #3	HW #4	HW #5	HW #6
Due Date:	Sept 29	Oct 13	Oct 30	Nov 17	Dec 1	Dec 8
Read:						
Chapter 1	all chap 1					
Chapter 2		sec 2.3				
Chapter 3		all chap 3				
Chapter 4			all chap 4			
Chapter 5			all chap 5			
Chapter 6				all chap 6		
Chapter 7					all chap 7	
Chapter 9						all chap 9
Exercises to Do:						
Chapter 1	1.4,1.5					
Chapter 2		2.7–2.11				
Chapter 3		3.1–3.15				
Chapter 4			4.1–4.12			
Chapter 5			5.1–5.10			
			add below			
Chapter 6				6.1–6.23		
Chapter 7					7.1–7.12	
					add below	
Chapter 9						9.1–9.14

Add to HW#3: Successive squares problems

1. Compute the last digit of 7^{58} .
 2. Compute the last two digits of 12^{25} .
 3. Compute the least non-negative residue of $7^{327} \bmod 853$.
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Add to HW#5: RSA Problems

1. Use RSA encryption to encrypt "PUBLIC KEY CRYPTOGRAPHY" via the key $(e, n) = (13, 2537)$.
2. If the ciphertext message produced by RSA with key $(e, n) = (13, 2747)$ is
2206 0755 0436 1165 1737
what was the original plaintext message?

Letter	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
Numerical Equivalent	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25

Table 8.9 Two-digit numerical equivalents of letters.