

The University of Newcastle
School of Electrical Engineering and Computer Science

COMP3260/COMP6360 Data Security

GAME 1 Thursday
7th March 2019

Number of Questions: 2

Time allowed: 50min

Total mark: 4

Calculators not allowed.

	<i>Student Number</i>	<i>Student Name</i>
<i>Student 1</i>		
<i>Student 2</i>		
<i>Student 3</i>		
<i>Student 4</i>		
<i>Student 5</i>		
<i>Student 6</i>		
<i>Student 7</i>		

<i>Question 1</i>	<i>Question 2</i>	<i>TOTAL</i>

1. Using fast exponentiation, calculate $3^{1501} \bmod 20$. Show all the workings.

2. Using Chinese Remainder Theorem, solve the following equation:

$$7x \bmod 15 = 1$$