

## Mathematics 3200H – Number Theory

TRENT UNIVERSITY, FALL 2015

### Assignments

Unless otherwise stated, the references below are to the textbook: *Elementary Number Theory* (2nd Edition), by Underwood Dudley.

**Assignment #1.** *Due on Monday, 21 September, 2015.*

§1 Problems # 2, 4, 7, 9, 12, 14, 15

§2 Problems # 2, 4, 5, 8, 10, 12, 14

**Problem Set #2.** *Due on Monday, 28 September, 2015.*

§3 Problems # 4, 6, 9, 10

§4 Problems # 4, 6, 10, 12, 14, 18, 20

**Homework #3.** *Due on Monday, 5 October, 2015.*

§5 Problems # 8, 10, 16, 17, 20

§6 Problems # 2, 4, 6, 10, 16, 20

**Task List #4** *Due on Tuesday, 13 October, 2015.*

§5 Problem # 14

§6 Problems # 18

§7 Problems # 2, 4, 5, 6, 8, 12

**Challenges #5** *Due on Monday, 19 October, 2015.*

§7 Problems # 10, 14, 20

§8 Problems # 1, 5, 6, 9, 10

**Job #6** *Due on Monday, 2 November, 2015.*

§9 Problems # 2, 4, 6, 7, 10, 11, 14

**Fun # $2\pi + \gamma$**  *Due on Monday, 2 November, 2015.*

1. Read *A Contribution to the Mathematical Theory of Big Game Hunting* by H. Pétard and devise as many original mathematical methods for capturing lions in the Sahara Desert as you can. [10]

**Chores #7** *Due on Monday, 9 November, 2015.*

§9 Problems # 13, 16, 17

§10 Problems # 2, 4, 6, 9

**Abstract Errand #8** *Due on Monday, 16 November, 2015.*

§11 Problems # 2, 4, 6, 8, 10, 12, 16, 18

**Quest #9** *Due on Monday, 23 November, 2015.*

§12 Problems # 1, 2, 4, 5a, 6ab, 7a, 10

**Exploration #10** *Due on Monday, 30 November, 2015.*

§13 Problems 14b, 15

§16 Problems 2, 5, 10, 11, 15, 19

§18 Problems # 2, 4, 5, 6, 8, 9

**Mildly Annoying Difficulties #11** *Due on Monday, 7 December, 2015.*

§19 Problems # 2, 4, 6, 7, 8, 10