| MCR 3U9 | | | June 2017 |
|---------------|--|-----|----------------------|
| | Central Peel Secondary School | | |
| | Grade 11 AP Mathematics – Final Exam | | |
| Mr. N. Nolfi | | | Pages: 7 |
| | | 115 | <u> </u> |
| <i>Name</i> : | Up to 10 marks can be deducted for commu | | Time: 2 hours |

Page 1 (12 Marks)

1. Several graphs and equations are given below. Match each graph to the most suitable equation. [12]

Page 2 (18 Marks)

- 2. State whether each of the following is true or false. Provide an explanation to support each response. [18]
 - (a) If a statement is true, prove that it is or provide an explanation.
 - **(b)** If a statement is false, provide a *counterexample* or an explanation.

Page 3 (23 Marks)

- 3. Modelling Periodic Phenomena [8]
- **4.** Transformations [15]

Page 4 (20 Marks)

- 5. Trigonometric Identities [12]
- **6.** Solving Trigonometric Equations [8]

Page 5 (19 Marks)

- 7. Polynomial Functions (Remainder Theorem) [4]
- **8.** Long Division of Polynomials with Rational Functions [15]

Page 6 (13 Marks)

9. Rational Inequalities [13]

Page 7 (10 Marks)

10. Surprise! (Involves Exponential Functions) [10]

Assuming that you reserve 15 minutes for checking your responses, how much time should you devote to each page of the final exam?

| Page # | Time (Minutes) |
|--------|----------------|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |

Calculations: