

Good Luck!

Up-side-down
Exam 26.pdf

A number does not define you.
That you've earned.
We WANT to give you the credit
How much you've learned.
This is your chance to show us
Take a deep breath.

-
- You may not use induction for your proofs on this midterm.

- They are given to you in the question.
- about rates of growth, divisibility, primes, or greatest common divisor unless you prove them, or about ratios of growth, divisibility, primes, or greatest common divisor unless you prove them, or
- In your proofs, you may always use definitions of predicates. You may not use any external facts about ratios of growth, divisibility, primes, or greatest common divisor unless you prove them, or
- $\text{Prime}(n)$. You do not need to show work for computing negations.
- All formulas must have negations applied directly to propositional variables or predicates (e.g., unless stated otherwise, your formulas can use only the propositional connectives and quantifiers (like = and >), and the divisibility and Prime predicates. You may not define your own sets or we have seen in class, arithmetic operators (like +, ×, and exponentiation), comparison operators (like = and >), and the divisibility and Prime predicates. You may not define your own sets or predicates unless asked to do so.
- Unless stated otherwise, your formulas can use only the propositional connectives and quantifiers (like = and >), and the divisibility and Prime predicates. You may not define your own sets or we have seen in class, arithmetic operators (like +, ×, and exponentiation), comparison operators (like = and >), and the divisibility and Prime predicates. You may not define your own sets or predicates unless asked to do so.
- Answer questions clearly and completely, with justifications unless explicitly asked not to.
- This examination has 4 questions. There are a total of 8 pages, DOUBLE-SIDED.
- Please write your name on both the front and back of this exam.

Please read the following guidelines carefully!

Student Number: 234

Name: CBA

No Aids Allowed

Instructor(s): David Liu, Torbjörn Pettersson
Duration: 50 minutes

midterm 1



UNIVERSITY OF TORONTO
Faculty of Arts and Science

CSC165H1S
Midterm 1

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1. [2 marks] Here is question 1.

Midterm I

midterm CG625H1S, Winter 2017





3. [3 marks] Here is question 3.



2. [2 marks] Here is question 2.



4. [4 marks] Here is a multi-page question.

Midterm I

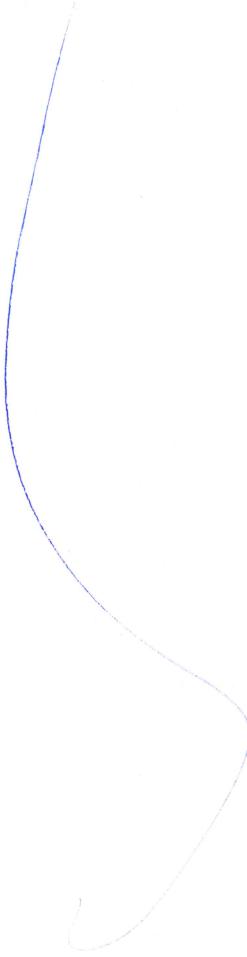
midterm 106-165H1S, Winter 2017





Question 4 continued...





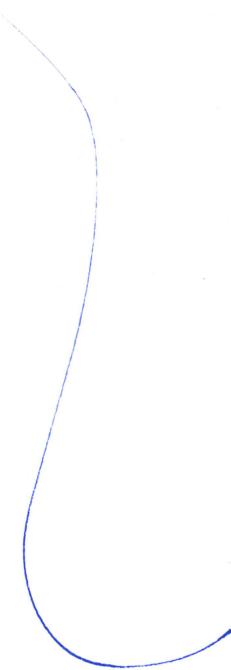
the location of the original question.

Use this page for rough work. If you want work on this page to be marked, please indicate this clearly at

Midterm I

midterm D60165HS , Winter 2017





the location of the original question.

Use this page for rough work. If you want work on this page to be marked, please indicate this clearly at



Question	Grade	Out of	Total
Q4		4	
Q3		3	
Q2		2	
Q1		2	
			11

CRA

Name:

Midterm 106-05HS1S, Winter 2017

