CSCA08 Fall 2015 Term Test #1
Duration — 120 minutes
Aids allowed: none

Student Number: |__|__|__|__|__|__|__|__|__|__|

Markus Login: _____

Last Name: _____   **First Name:** _____

Please place a checkmark (✓) beside your tutorial session

Tutorial Number	Date/Time	Room	TA Name	Check
TUT0001	WE 16:00 17:00	IC 212	Umair Idris	
TUT0002	WE 19:00 20:00	MW 264	Eric Wang	
TUT0003	MO 10:00 11:00	PO 101	Shadman Shadid	
TUT0004	TU 9:00 10:00	AA 209	Maheshan Indralingam	
TUT0005	TH 17:00 18:00	IC 212	Andrew Wang	
TUT0006	TH 18:00 19:00	BV 361	Ekin Ozcelik	
TUT0007	TH 19:00 20:00	BV 361	Kalindu De Costa	
TUT0008	TU 12:00 13:00	MW 140	Shichong Peng	
TUT0009	FR 9:00 10:00	IC 208	Yasaman Mahdaviyeh	
TUT0010	FR 10:00 11:00	MW 120	Ayaan Chaudhry	
TUT0011	FR 13:00 14:00	BV 355	Umair Idris	
TUT0012	FR 14:00 15:00	IC 212	Ekin Ozcelik	
TUT0013	TU 9:00 10:00	IC 230	Vidhya Arulnathan	
TUT0014	TU 11:00 12:00	IC 326	David Kua	
TUT0015	TH 12:00 13:00	MW 160	Pat McGee	
TUT0016	TU 9:00 10:00	HW 215	Bo Zhao	
TUT0017	TH 18:00 19:00	HW 308	Ben Cooper	
TUT0018	FR 9:00 10:00	IC 120	Mohammed Faizan	
TUT0019	FR 10:00 11:00	BV 363	Tianxiang Gao	
TUT0021	FR 11:00 12:00	IC 230	Judy Duong	
TUT0022	WE 9:00 10:00	BV 260	Pat McGee	
TUT0023	MO 9:00 10:00	AA 208	Janarthanan Manoharan	
TUT0025	WE 15:00 16:00	IC 120	Judy Duong	
TUT0026	FR 14:00 15:00	BV 355	Charles Ruan	

*Do **not** turn this page until you have received the signal to start.*

This exam consists of 4 questions on 10 pages (including this one). *When you receive the signal to start, please make sure that your copy is complete.*
Proper documentation is required for all functions and code blocks. If you use any space for rough work, indicate clearly what you want marked. Please read all questions thoroughly before starting on any work.

The University of Toronto's Code of Behaviour on Academic Matters applies to all University of Toronto Scarborough students. The Code prohibits all forms of academic dishonesty including, but not limited to, cheating, plagiarism, and the use of unauthorized aids. Students violating the Code may be subject to penalties up to and including suspension or expulsion from the University.

1: _____/15

2: _____/15

3: _____/15

4: _____/15

TOTAL: _____/60

[Use the space below for rough work. This page will not be marked unless you clearly indicate the part of your work that you want us to mark.]

Question 1.   [15 MARKS]

Write the output of the following code in the space provided.

```
def add(x, y):
    print("ADD: " + str(x) + " + " + str(y))
    return x + y


def multiply(x, y):
    print("MULT: " + str(y) + " * " + str(x))
    return x * y


def mystery_1(x, y):
    x = x + y
    y = y + x
    print("Mystery 1: " + str(x) + " , " + str(y))
    return y


def mystery_2(x, y):
    x = mystery_1(add(x,y), multiply(x,y))
    print("Mystery 2: " + str(x) + " , " + str(y))
    return x + y


x = 1
y = 2
print("STEP 1: " + str(add(x,y)))
print("STEP 2: " + str(multiply(x,y)))
print("STEP 3: " + str(mystery_1(x, y)))
print("STEP 4: " + str(mystery_2(x, y)))
print("STEP 5: " + str(mystery_2(mystery_1(x, y), x)))
```

[Use the space below for rough work. This page will not be marked unless you clearly indicate the part of your work that you want us to mark.]
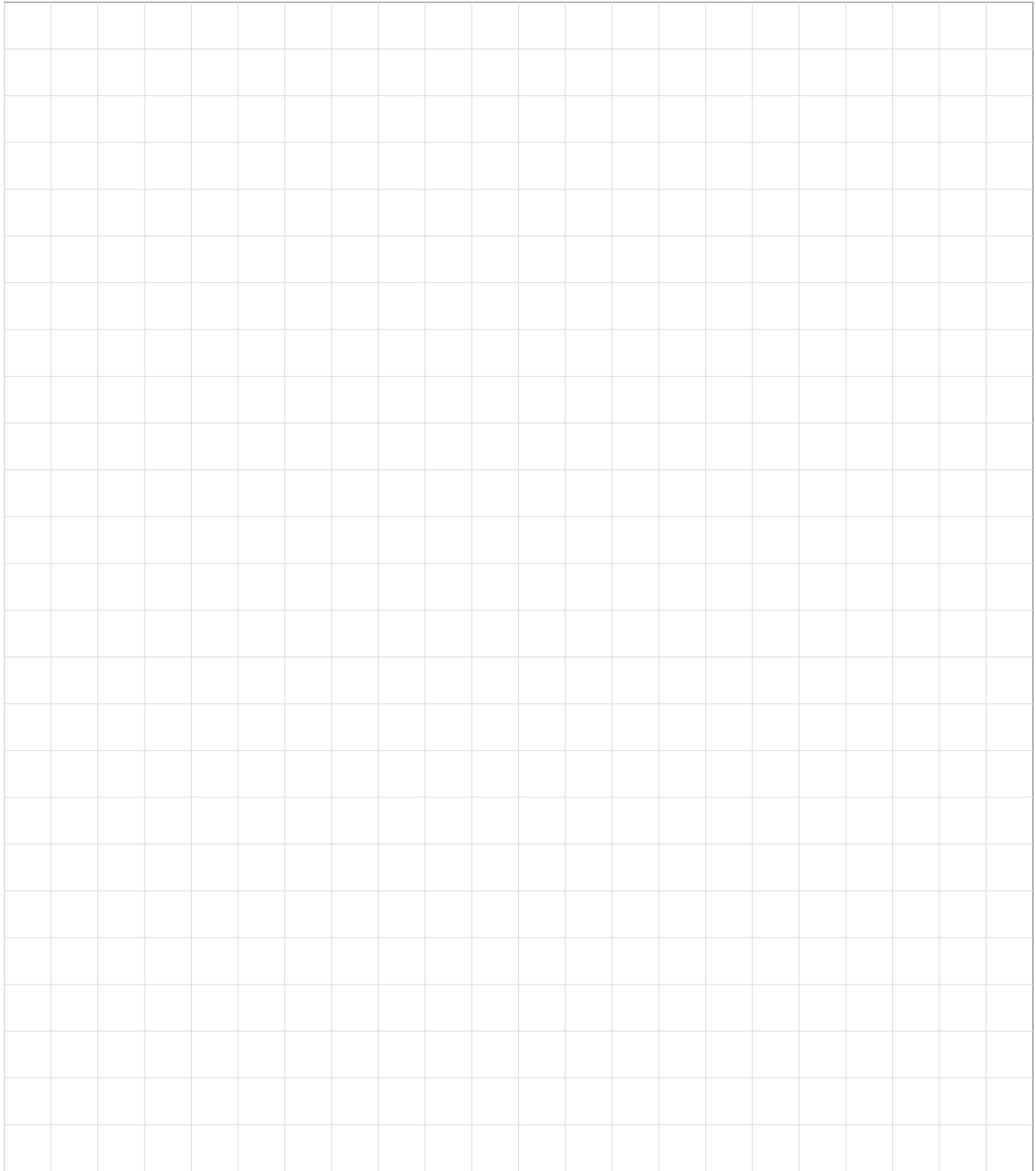
Question 2. [15 marks]

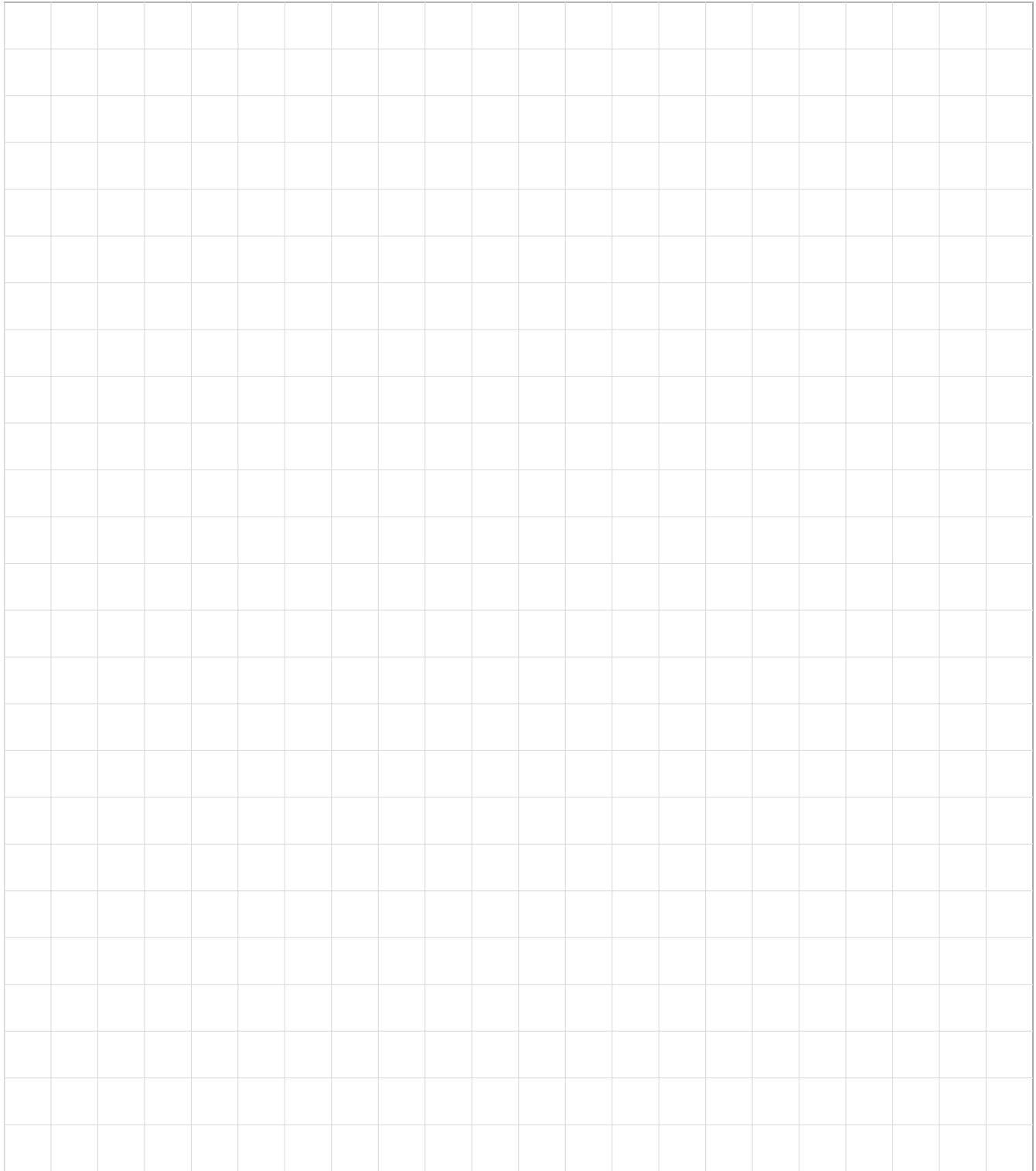Write the output of the following code in the space provided.

```python
def func1(var1, var2):
    print("func1: ", var1, var2)
    return var3

def func2(var1, var2):
    var3 = func1(var1, var2)
    print("func2: ", var1, var2, var3)
    return var1 + var2

def func3(var1, var2, var3):
    var1 = func2(var1, var2)
    var2 = func2(var2, var3)
    print("func3: ", var1, var2, var3)
    return func2(func1(var1, var2), func1(var2, var1))

var1 = "A"
var2 = "B"
var3 = "C"
print("STEP 1: ", var1, var2, var3)
var3 = func1(var1, var2)
print("STEP 2: ", var1, var2, var3)
var1 = "A"
var2 = "B"
var3 = "C"
var3 = func2(var1, var2)
print("STEP 3: ", var1, var2, var3)
var1 = "A"
var2 = "B"
var3 = "C"
var3 = func3(var1, var2,var3)
print("STEP 4: ", var1, var2, var3)
```
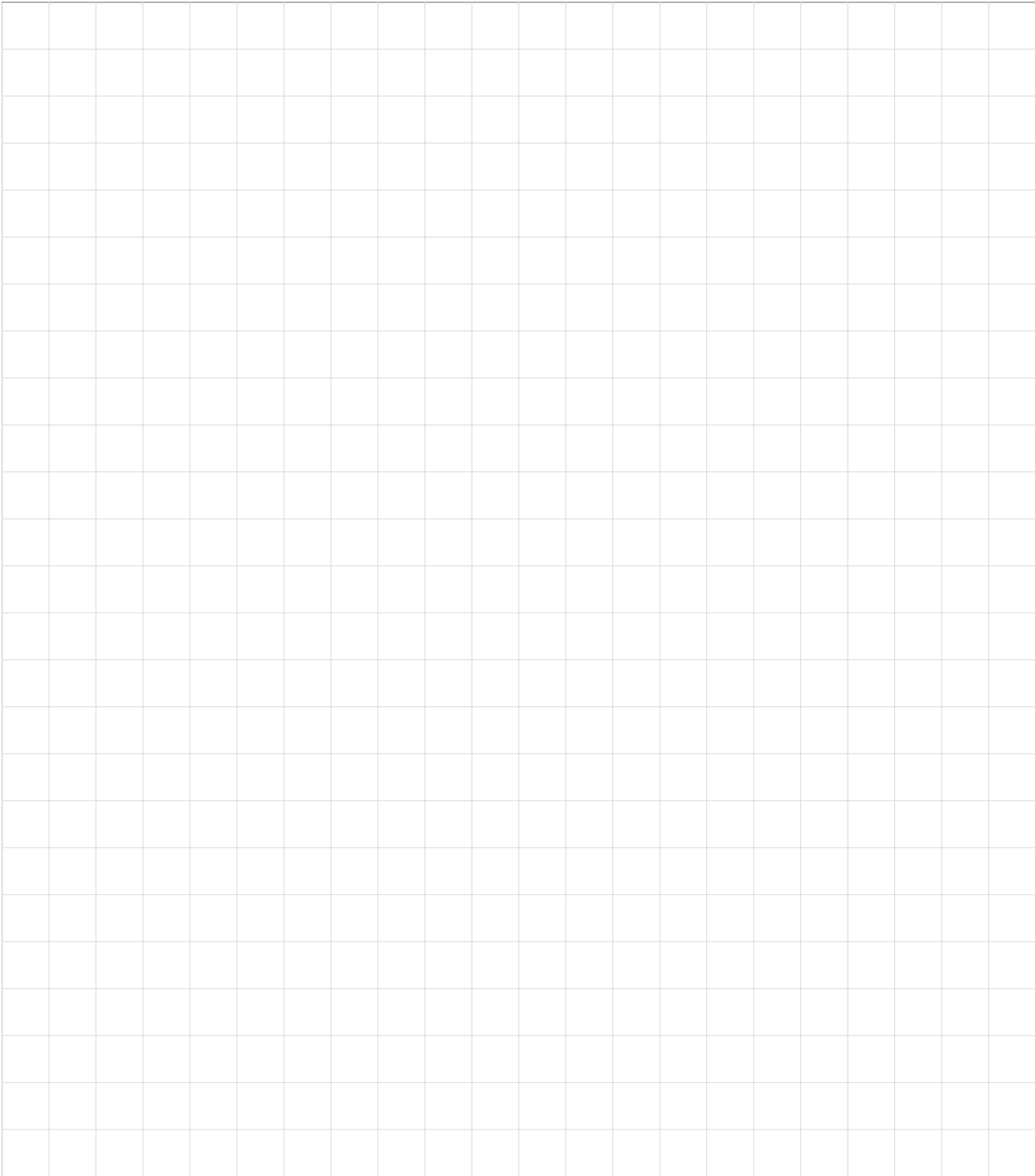
[Use the space below for rough work. This page will not be marked unless you clearly indicate the part of your work that you want us to mark.]

Question 3.   [15 marks]

In the space below, write a function to decide if a student should be accepted into a course, given the following rules:

- Anyone whose program code is CSC should be allowed into the course

- Students whose program code is MAT or STA require a GPA of 3.0 or higher to enter the course

- Any student with a GPA above 3.5 is allowed in

- Anyone named Brian should be allowed into the course

You may **not** use any if statements, loops or any other elements of Python we have not covered in lecture.

[Use the space below for rough work. This page will not be marked unless you clearly indicate the part of your work that you want us to mark.]

Question 4. [15 marks]

In the space below, write a function to decide if a person is able to legally drive in Ontario, given the following rules:

- All drivers must be 16 years of age or older

- All drivers over 85 must have a vision score of 0.5 or better

- All drivers must have a blood alcohol content of 0.08 or lower

- Drivers under 21 must have a blood alcohol content of 0

You may **not** use any if statements, loops or any other elements of Python we have not covered in lecture.

[Use the space below for rough work. This page will not be marked unless you clearly indicate the part of your work that you want us to mark.]