

FIRST NATIONS UNIVERSITY OF CANADA  
DEPARTMENT OF SCIENCE  
MATH 110 200830 Quiz 1

Time: 20 minutes

Name: \_\_\_\_\_

Instructor: Dr. Edward Doolittle

Student #: \_\_\_\_\_

(marks) Please do questions 1 and 2. You have 10 minutes to do each question, for a total of 20 minutes for the quiz. A non-programmable calculator of the type mentioned in the course outline is allowed.

- (10) 1. (a) Let  $f(x) = \frac{9-x}{\sqrt{x}-3}$ . Use your calculator to fill in the following table of values to 4 decimal points.

$x$	$9-x$	$\sqrt{x}-3$	$f(x)$
10.00			
9.10			
9.01			
8.99			
8.90			
8.00			

- (b) Use the table of values to estimate the limit  $\lim_{x \rightarrow 9} \frac{9-x}{\sqrt{x}-3}$ .

- (10)      2. Find the vertical asymptotes of the function  $y = \frac{x+3}{x^2+x-6}$ .