

UNIVERSITY OF REGINA  
DEPARTMENT OF MATHEMATICS AND STATISTICS  
MATH 110 200730 Quiz 1 (Section 004)

Time: 20 minutes

Instructor: Dr. Edward Doolittle

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

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. If you finish early, I suggest you check your work thoroughly. **Please do not disturb your colleagues by climbing over them while they are trying to write the quiz.**

- (10) 1. (a) Let  $f(x) = \frac{4 - \sqrt{x}}{x - 16}$ . Use your calculator to fill in the following table of values to 4 decimal points.

$x$	$4 - \sqrt{x}$	$x - 16$	$f(x)$
17.00			
16.10			
16.01			
15.99			
15.90			
15.00			

- (b) Use the table of values to estimate the limit  $\lim_{x \rightarrow 16} \frac{4 - \sqrt{x}}{x - 16}$ .

- (10) 2. Find the vertical asymptotes of the function  $y = \frac{x+1}{x^2+x-6}$ .