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. 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 $f(x) = \dfrac{4 - \sqrt{x}}{x - 16}$. 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 $\displaystyle\lim_{x \to 16} \frac{4 - \sqrt{x}}{x - 16}$.

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