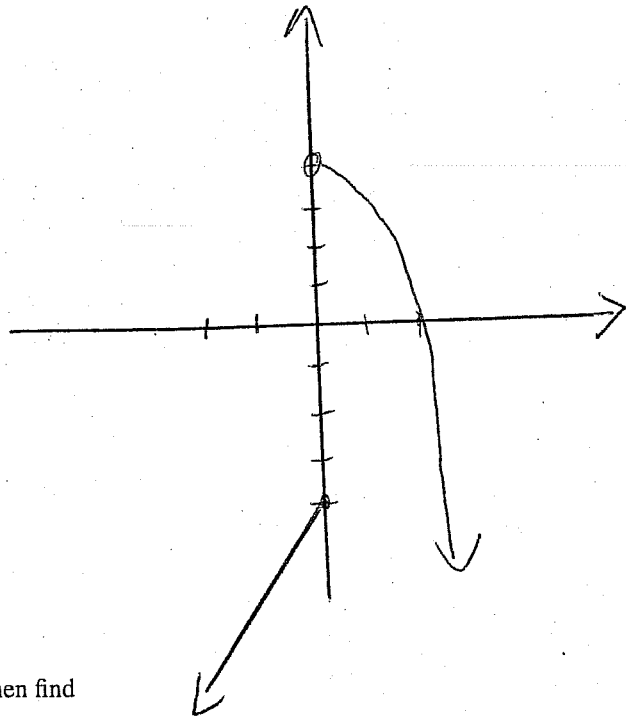Name: _YANN LAMONtAgine_
Student ID: _____

Quiz 6

This quiz is graded out of 10 marks. No books, calculators, notes or cell phones are allowed. You must show all your work, the correct answer is worth 1 mark the remaining marks are given for the work. If you need more space for your answer use the back of the page.

Question 1. pg.110#6 *(6 marks)* Graph the following piece-wise function:

$$f(x) = \begin{cases} 2x-4 & \text{if } x \le 0 \\ -x^2+4 & \text{if } x > 0 \end{cases}$$

Question 2. pg.101#2a,c. Let $f(x) = x^2 - 2x - 2$, then find

   a. *(2 marks)* $f(3)$

   c. *(2 marks)* x if $f(x) = -2$

a) $f(3) = 3^2 - 2(3) - 2 = 9 - 6 - 2 = 1$

b) $x^2 - 2x - 2 = -2$

$$x^2 - 2x = 0$$

$$x(x-2) = 0$$

$$x = 0 \qquad x - 2 = 0$$

$$x = 2$$