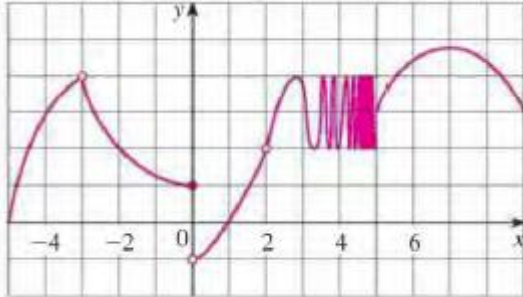## Math 101 (Term 172) - Quiz 1

Student Name_____ **Student ID:** _____

Exercise 1 [4 points]

The graph of the function $f(x)$ is given below:

Determine the following limits:

(a) $\lim\limits_{x \to -3} f(x) =$

(b) $\lim\limits_{x \to 0} f(x) =$

(c) $\lim\limits_{x \to 5^-} f(x) =$

(d) $\lim\limits_{x \to 5^+} f(x) =$

Exercise 2 [3 points]

Determine $\lim\limits_{x \to -4} \dfrac{4-|x|}{16-x^2} =$

Exercise 3 [3 points]

Prove that $\lim\limits_{x \to -1.5} \dfrac{9-4x^2}{3+2x} = 6$ using δ and ε.