Quiz 3

Name:- ID:-

1. The graph of f is given.

   (a) (8 points) Evaluate the limit if it exists. If it does not exist, explain why. Use the symbols ∞ or $-\infty$ as appropriate.

   i. $\lim_{x \to 2^+} f(x)$

   ii. $\lim_{x \to -3^+} f(x)$

   iii. $\lim_{x \to -3} f(x)$

   iv. $\lim_{x \to 4} f(x)$

   v. $\lim_{x \to 0} f(x)$

   vi. $\lim_{x \to 2^-} f(x)$

   vii. $\lim_{x \to \infty} f(x)$

   viii. $\lim_{x \to -\infty} f(x)$

   (b) (2 points) State the equations of the horizontal asymptotes.

   (c) (2 points) State the equations of the vertical asymptotes.

   (d) (2 points) At what numbers f is discontinuous? Explain.