Quiz - Nov 7

Write your name, student number, and answers on a blank sheet of paper. You can use the back of the paper. No calculators, notes, or other aids.

(1) \( f(x) = \frac{x + 2}{x^3} \)

(a) Find the domain of \( f \).

(b) Find any vertical asymptotes of \( f \). Justify your answer by computing appropriate limits.

(c) Find any horizontal asymptotes of \( f \). Justify your answer by computing appropriate limits.

(d) Find the intervals where \( f \) is increasing and decreasing.

(e) Find the intervals where \( f \) is concave up and concave down.

(f) Identify any local maxima and minima of \( f \).

(g) Find any inflection points of \( f \).