Task 2:



This is the denominator of the third function. When you factor this out, you get (x-3)^2 \* (x-1), which make its roots x = 3 and x = 1, or (1,0) and (3,0). When function 4 gets to 0, function 3 becomes undefined due to function 4 being the denominator for function 3.

Task 3:

A close up of a logo

Description automatically generated

This method is very odd because its graph switches directions constantly as it approaches 0, so there are places where the limit does not exist. As x gets lower and lower and approaches 0, the fraction 1/x gets very large, and when it eventually gets to 0, it becomes undefined.