King Fahd University for Petroleum and Minerals Department of Mathematics & Statistics Term 162 Math 101 (08) Quiz#2 (2.4, 2.5 & 2.6) Family Name: S.r#  $e^x$ , if x < 0Q1. Find the number(s) at which  $f(x) = \begin{cases} 3x + 1, & \text{if } 0 < x < 1 \\ 4x, & \text{if } x \ge 1 \end{cases}$  is Not Continuous and state the type of discontinuity.

Q2. <u>Use limits</u> to find the horizontal asymptote(s) -if any- for  $f(x) = x - \sqrt{x^2 - 6x}$ .