

Q1. Find the number(s) at which  $f(x) = \begin{cases} e^x, & \text{if } x < 0 \\ 3x + 1, & \text{if } 0 < x < 1 \\ 4x, & \text{if } x \geq 1 \end{cases}$  is Not Continuous and state the type of discontinuity.

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

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