

Quiz 1 (Dr. AL-Homidan)(152)

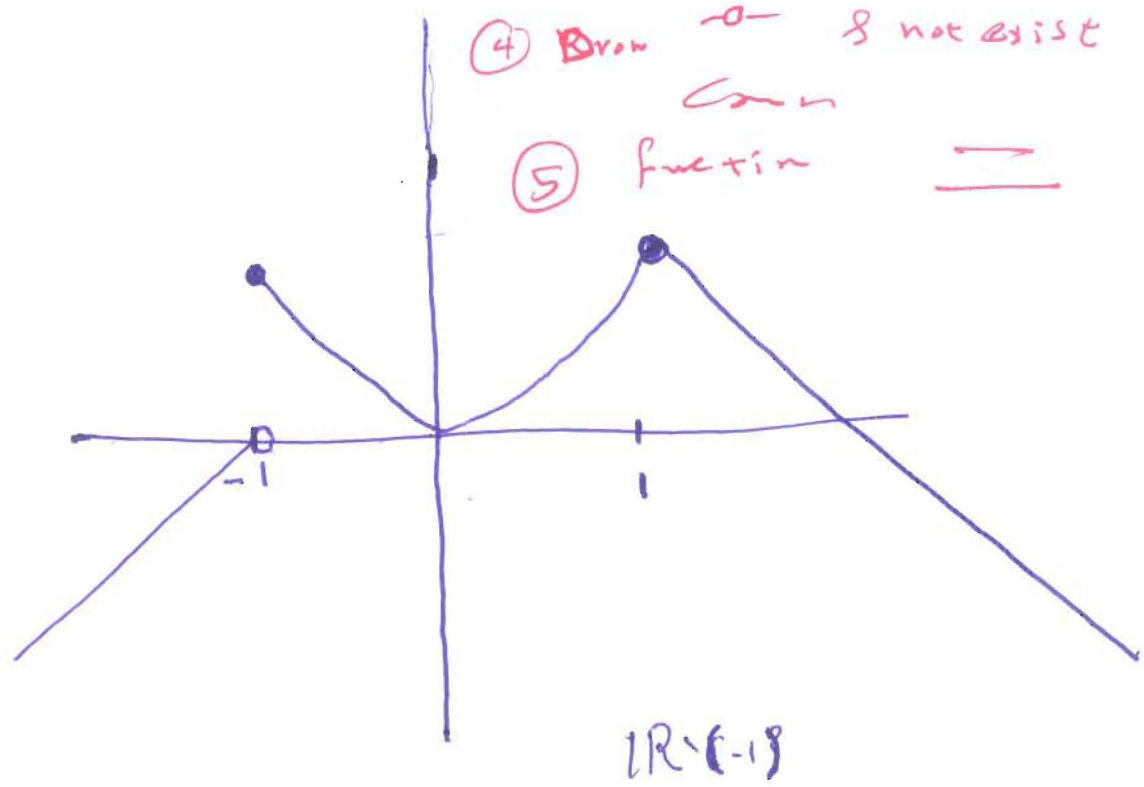
Name:-

ID:-

Sketch the graph of the function and use it to determine the values of  $a$  for which  $\lim_{x \rightarrow a} f(x)$  exists and the values of  $a$  for which  $\lim_{x \rightarrow a} f(x)$  does not exist.

$$f(x) = \begin{cases} 1+x & \text{if } x < -1 \\ x^2 & \text{if } -1 \leq x < 1 \\ 2-x & \text{if } x \geq 1 \end{cases}$$

- ① 1, -1
- ② all  $\mathbb{R}$
- ③  $x+1$  line  
 $2-x$



- ④ Draw  $\rightarrow$  & not exist
- ⑤ function  $\underline{\quad}$