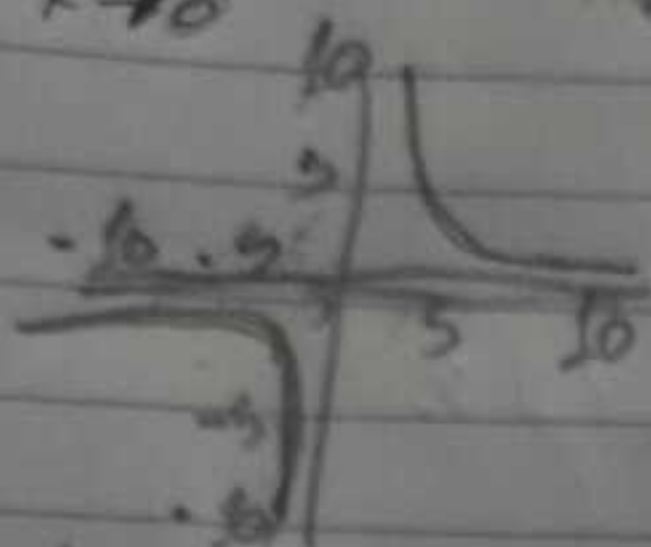


1)

a)  $\lim_{x \rightarrow 0^-} f(x) = \lim_{x \rightarrow 0^-} \frac{1}{x} = -\infty$

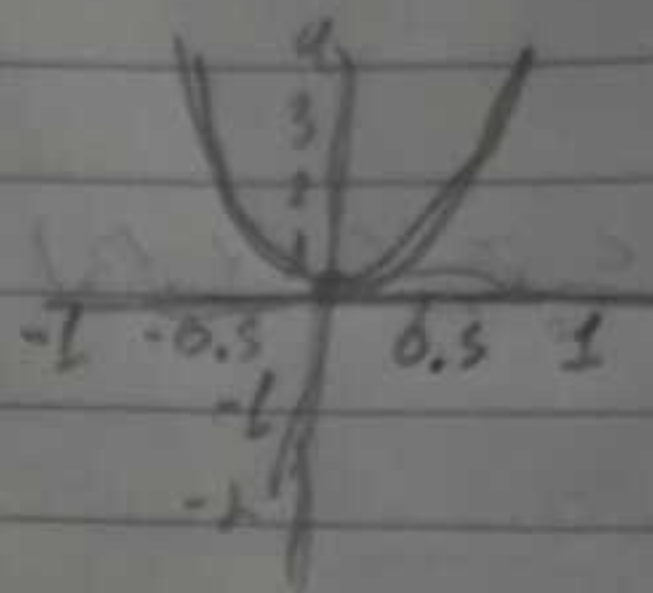


$f \sim x < 0$

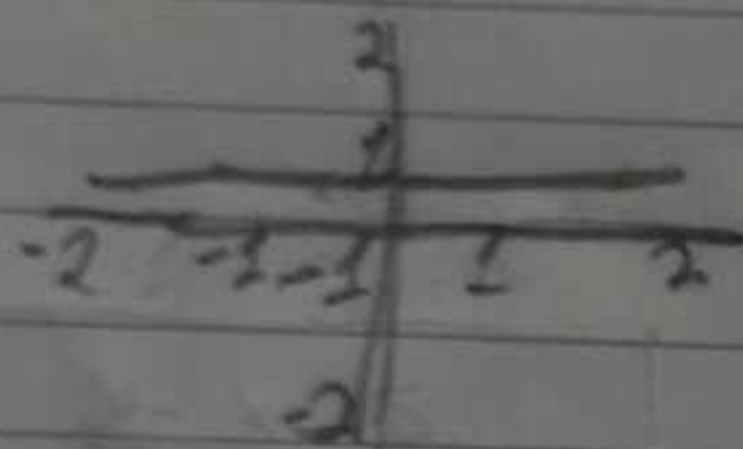
$f \sim 0 \leq x < 1$

$x^2 \sim x \geq 1$

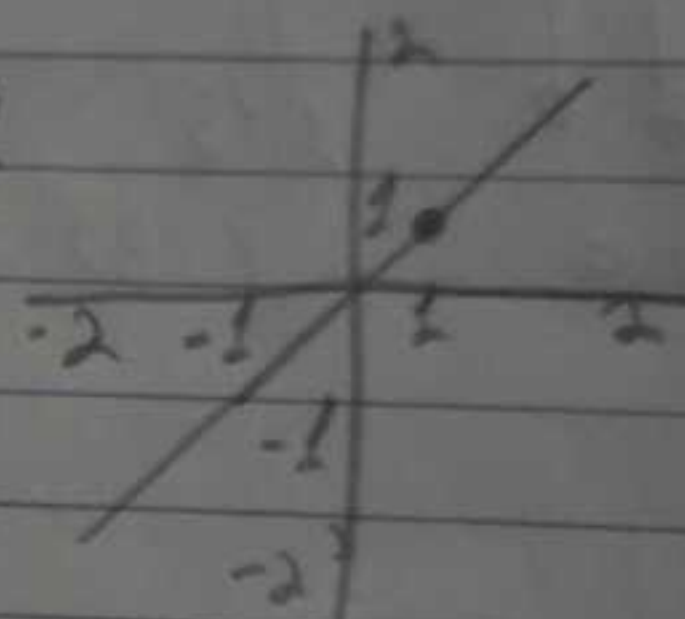
b)  $\lim_{x \rightarrow 0^+} f(x) = \lim_{x \rightarrow 0^+} x^2 = 0$



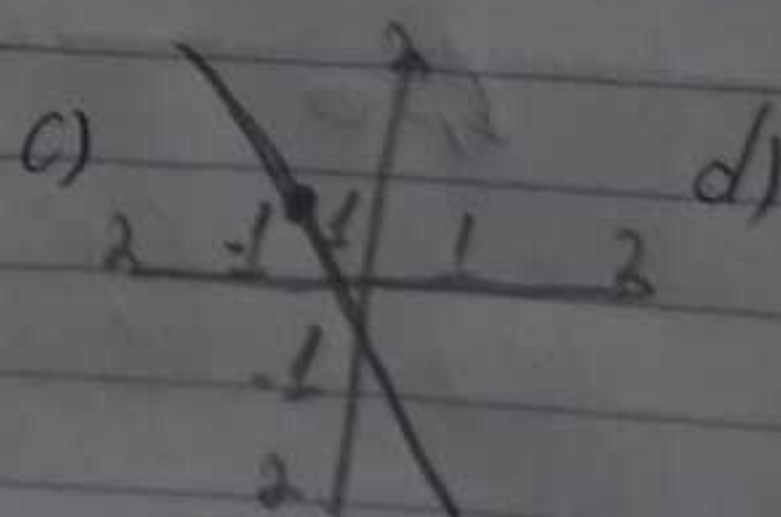
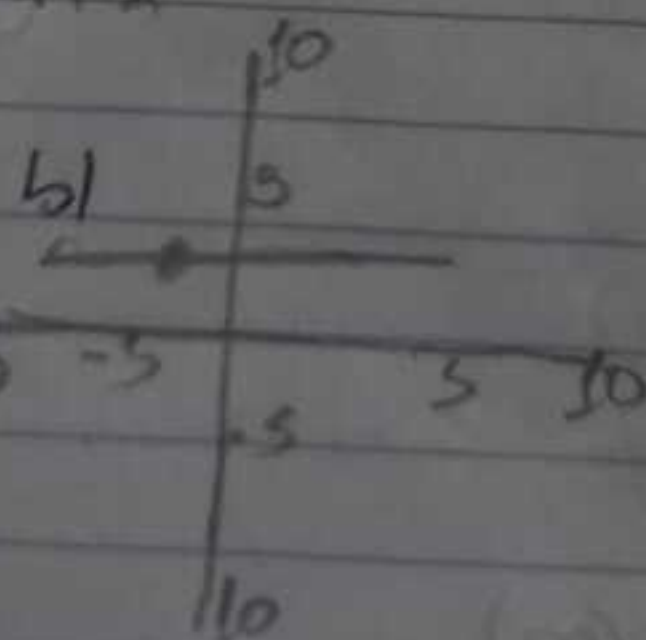
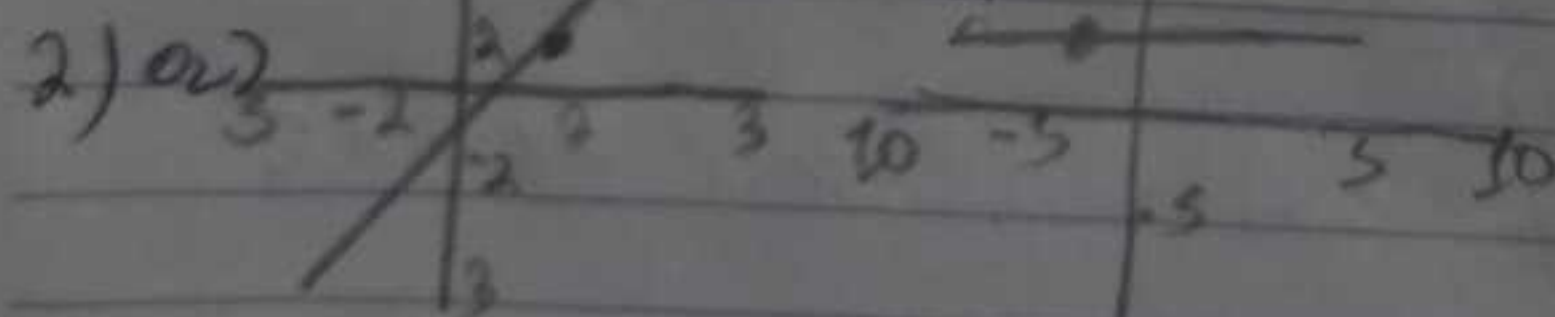
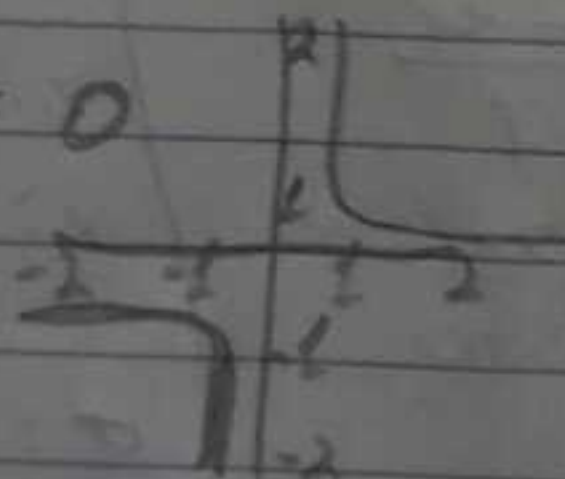
c)  $\lim_{x \rightarrow 0} f(x) = 1$



d)  $\lim_{x \rightarrow 1} f(x) = 1$



e)  $\lim_{x \rightarrow -\infty} f(x) = 0$



d)

