

## 1 | Continuity

$f$  is continuous at  $c$  if  $\lim_{x \rightarrow c} f(x) = f(c)$

$f$  is continuous on  $I$  if  $f$  is continuous at  $c$  for all values of  $c$  in  $I$ . If  $f$  is continuous from the interval  $(-\infty, \infty)$   $f$  is continuous.

$f$  is continuous on  $[a, b]$  if  $f$  is continuous on  $(a, b)$  -  $\lim_{x \rightarrow a^+} f(x) = f(a)$  -  $\lim_{x \rightarrow b^-} f(x) = f(b)$