

This quiz is worth 10 points and you have 10 minutes to complete it. Show all work and circle your final answers.

Calculators are NOT allowed today.

1. (10 pts) For each function f and point c described, determine whether or not f is continuous at $x = c$. Circle **ALL** that apply for each function. You do not need to show any work.

- (a) $\lim_{x \rightarrow 2^-} f(x) = 2$, $\lim_{x \rightarrow 2^+} f(x) = 1$, and $f(2) = 1$, at the point $c = 2$.

continuous	left-continuuos	right-continuuos
removable discontinuity	jump discontinuity	infinite discontinuity

- (b) $f(x) = \frac{x^2 - 1}{x - 1}$, at the point $x = 0$.

continuous	left-continuuos	right-continuuos
removable discontinuity	jump discontinuity	infinite discontinuity

- (c) $f(x) = \frac{x - 3}{x^2 - 2x - 3}$, at the point $c = 3$.

continuous	left-continuuos	right-continuuos
removable discontinuity	jump discontinuity	infinite discontinuity

- (d) $f(x) = \begin{cases} x^2 - 3x - 1, & \text{if } x \neq -2 \\ 3, & \text{if } x = -2, \end{cases}$ at the point $c = -2$.

continuous	left-continuuos	right-continuuos
removable discontinuity	jump discontinuity	infinite discontinuity