

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. (4 pts) Find the domain of $f(x) = \frac{\sqrt{x}}{3x - 5}$. Show your work, and write your answer in interval notation.

2. (6 pts) Let $f(x) = |3x + 1|$.

(a) Write $f(x)$ as a piecewise function where each piece is defined on an *interval* of x -values. Show your work.

(b) Sketch a graph of $f(x)$. Label any x -intercepts or y -intercepts.