Quiz 3

MATH 200

January 27, 2022

Directions: Find the limits. Show all steps. Simplify your answer.

1. $\lim\limits_{x \to 5\pi/6} \tan(x) =$

2. $\lim\limits_{x \to 0} \dfrac{(3x - 6)\sin(x)}{x^2 - 2x} =$

3. $\lim\limits_{x \to 0} \sin^{-1}\left(\dfrac{\sin(x)}{x} \right) =$

4. State the intervals on which the function $f(x) = \dfrac{x}{e^x - 3}$ is continuous.

Directions: Find the limits. Show all steps. Simplify your answer.

1. $\displaystyle\lim_{x\to\frac{7\pi}{4}} \sec(x) =$

2. $\displaystyle\lim_{x\to 0} \frac{6\sin(x)}{x^3+7x} =$

3. $\displaystyle\lim_{x\to 2} \tan^{-1}\left(\frac{x^2-3x+2}{x^2-5x+6}\right) =$

4. State the intervals on which the function $f(x) = \dfrac{\sin(x)}{x}$ is continuous.