## Directions Use logarithmic differentiation to find the derivatives of the given functions.

1. $y=x^{\sin (x)}$
2. $y=\frac{e^{x} x^{2} \sin (x)}{x+1}$

Directions Use logarithmic differentiation to find the derivatives of the given functions

1. $y=(x+1)^{x}$
2. $y=\frac{x \sqrt{\sin (x)}}{5+e^{x}}$
