

Quiz 21

Name: _____

1. Find the global minimum and maximum of the function $f(x) = xe^x$ on the interval $-2 \leq x \leq 0$.

$f'(x) = e^x + xe^x = 0$ when $x = -1$. Then

$$f(-2) = -0.271,$$

$$f(-1) = -0.368$$

$$f(0) = 0$$

So $y = -0.368$ is the global minimum and $y = 0$ is the global maximum.