QUIZ 5
You have 25 minutes.
No notes, no books.
YOU MUST SHOW ALL WORK TO RECEIVE CREDIT
Good luck!

Name ________________________________

1. _________ (/20 points)

2. _________ (/20 points)

Total _________ (/40 points)
1a. Let $f(x) = x^2 e^{4-x^2}$. Find the maximum and the minimum of the function $f$ in the interval $[-2,2]$.

1b. Show that $\frac{d}{dx} x^{\ln x} = 2x^{\ln x-1} \ln x$. 

2. Among all rectangles with perimeter 12, find the one, i.e. the length of its sides, with maximum area.