Math 65B - Summer 2016

Quiz 8: Wednesday July 6, 2016

1. (1 point) Evaluate the integral and state whether it is convergent or divergent:

$$\int_2^\infty \frac{1}{x \ln(x)} \, dx$$

2. (1 point) Determine whether the sequence converges or diverges. If it converges, find its limit.

(a) $\qquad a_n = n^2 e^{-n}$

(b) $\qquad a_n = n \sin\left(\dfrac{1}{n}\right)$

(c) $\qquad a_n = \dfrac{n!}{2^n}$

Please, show all work.