NAME: ....   ID. #: . . . .

Q1. Write the first three terms of the Taylor series of $f(x) = \cos 2x$ about $a = \pi$

Q2. Using the Maclaurin series of e^x find the sum of:

$$\sum_{n=0}^{\infty} \frac{1}{3^n n!}$$

Q3. Find the interval of convergence and the radius of convergence of the power series:

$$\sum_{n=1}^{\infty} \frac{(x-1)^n}{n2^n}$$