## QUIZ 8

1. (3 points) Write down the MacLaurin series for  $e^{2x}$ .

2. (3 points) Find the Taylor series for  $\frac{1}{2-x}$  at x=1 and its radius of convergence.

**3.** (4 points) Find a closed-form expression for  $\sum_{n=1}^{\infty} nx^n$ .