Calculus I, Fall 2013

Quiz 4

Nov 28, 2013

Show all details.

- 1. Write down Newton's method that can be used to find $\sqrt[3]{2}$. Need not give the numerical value.
- 2. Solve for y(x) from the equation $y'(x) = \frac{1}{1+4x^2}$ with y(0) = 1.
- 3. Evaluate $\lim_{n \to \infty} \sum_{k=1}^{n} \frac{1}{n} e^{\frac{k}{n}}$.
- 4. State both parts of Fundamental Theorem of Calculus. Need not prove.
- 5. Evaluate $\frac{d}{dx} \int_{1}^{x^2} e^{t^2} dt$.

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