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CSCI-UA 310-001 PS1

3. $L = \lim_{i \to \infty} \frac{(i+1)^2}{2^{(1+i)}} * \frac{2^i}{i^2} \to \frac{i^2+2i+1}{2i^2} \to L'H \to \frac{2i+2}{4i} \to L'H \to \frac{2}{4} \to \frac{1}{2}$

   L is less than 1; therefore, the infinite series **converges** absolutely.