1. Determine whether each of the following sequences converge, and if they do, what the limit is.

    a. $\left\{ \dfrac{2^n}{n^3} \right\}$

    b. $\left\{ \dfrac{n!}{n^n} \right\}$

    c. $\left\{ \dfrac{3^n}{n!} \right\}$