Do the following series converge or diverge?

1. $\displaystyle\sum_{k=4}^{\infty} \frac{2k^2}{3k^3 - 1}$ (Comparison & Integral tests)

2. $\displaystyle\sum_{k=1}^{\infty} \frac{\sin(k) + 3}{5k^{17}}$ (Comparison & Integral tests)

3. $\displaystyle\sum_{n=12}^{\infty} \frac{10^n}{n!}$ (Ratio Test)