Name : _____

Sum of the Series

The n^{th} partial sum is given. Find the infinite sum (S) of the series. Also determine whether the series converges or diverges.

1) $S_n = \frac{13}{15n} + 6n^3 + 2n$

2) $S_n = \frac{11n(n+3)^2}{17n^3}$

3) $S_n = \frac{n+1}{2n^2+1}$

5) $S_n = \frac{n^5 - 5n}{n^2 + n}$

7) $S_n = \frac{(n+3)(21n+1)}{7n^2+4}$

8) $S_n = \frac{n^4}{n(n^2+n+0.6)}$