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) $S_n = \frac{10n^2 + 1.6}{n^4}$

2) $S_n = \frac{(3n + 1)^2}{7 + 12n}$

3) $S_n = \frac{1 + 9n^5}{n + 14}$

5) $S_n = \frac{6n^2 - 2}{2n(3 - 4n}$

7) $S_n = \frac{n^2 + 7n - 1}{6 + n}$

8) $S_n = \frac{14}{5n} + \frac{4n^2}{3}$