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## Sum of the Series

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

1) $S_{n}=\frac{n^{3}+1}{n^{2}+1}$
2) $S_{n}=\frac{5 n^{2}-\mathrm{n}^{3}}{10+6 n^{3}}$
3) $S_{n}=\frac{0.8 n}{n+1.7}$

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 collection of worksheets in all subjects!5) $S_{n}=\frac{9 n^{4}}{n+12}$

6) $S_{n}=\frac{-8 n+9}{3+n}$
7) $S_{n}=15 n-\frac{n^{2}}{n^{4}+11}$
