

11.2 - Series

Calculus II

Find the first 3 terms.

1. $\sum_{n=1}^{\infty} n2^n$

2. $\sum_{n=3}^{\infty} \frac{2n}{n+2}$

Determine if the series is convergent or divergent. If convergent, solve.

3. $s_n = \frac{5+8n^2}{2-7n^2}$

4. $s_n = \frac{n^2}{5+2n}$

Show that the series is divergent.

5. $\sum_{n=0}^{\infty} \frac{3ne^n}{n^2+1}$

6. $\sum_{n=5}^{\infty} \frac{6+8n+9n^2}{3+2n+n^2}$

Special Series - determine if it converges or diverges.

7. $\sum_{n=0}^{\infty} 3^{2+n} 2^{1-3n}$

8. $\sum_{n=1}^{\infty} \frac{5}{6n}$

9. $\sum_{n=1}^{\infty} \frac{3}{n^2+7n+12}$

10. $\sum_{n=1}^{\infty} \frac{5^{n+1}}{7^{n-2}}$

11. $\sum_{n=4}^{\infty} \frac{10}{n^2-4n+3}$