Calculus 2 Workbook

Partial sums

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MATH

CALCULATING THE FIRST TERMS OF A SERIES OF PARTIAL SUMS

■ 1. Approximate the first four terms of the series of partial sums.

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

■ 2. Approximate the first four terms of the series of partial sums.

$$\sum_{n=1}^{\infty} \frac{5n^2}{7n + 4}$$

■ 3. Approximate the first four terms of the series of partial sums.

$$\sum_{n=1}^{\infty} \frac{9n^3}{8n^2 + 13}$$

SUM OF THE SERIES OF PARTIAL SUMS

■ 1. Use the partial sums equation to find the sum of the series.

$$s_n = 12 + \frac{9}{n}$$

■ 2. Use the partial sums equation to find the sum of the series.

$$s_n = \frac{7n^2 + 9n}{n^2 - 6}$$

■ 3. Use the partial sums equation to find the sum of the series.

$$s_n = \frac{9n^3 + 7n + 9}{8n^3 + 2n^2 + 5}$$

■ 4. Use the partial sums equation to find the sum of the series.

$$s_n = \frac{13}{15n^3} + \frac{12}{n} + 5$$

■ 5. Use the partial sums equation to find the sum of the series.

$$s_n = \frac{14n^2}{15n^3} - \frac{n}{16n^2} - \frac{1}{4n} + \frac{1}{3}$$