Calculus 2 Workbook

Comparison tests

krista king MATH

COMPARISON TEST

1. Use the comparison test to say whether or not the series converges.

$$\sum_{n=0}^{\infty} \frac{4}{3^n + n}$$

2. Use the comparison test to say whether or not the series converges.

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

3. Use the comparison test to say whether or not the series converges.

$$\sum_{n=2}^{\infty} \frac{5}{\ln n}$$

LIMIT COMPARISON TEST

■ 1. Use the limit comparison test to say whether or not the series converges.

$$\sum_{n=1}^{\infty} \frac{3n+2}{(2n-1)^4}$$

■ 2. Use the limit comparison test to say whether or not the series converges.

$$\sum_{n=1}^{\infty} \frac{12n^2+5}{n^3-7}$$

■ 3. Use the limit comparison test to say whether or not the series converges.

$$\sum_{n=1}^{\infty} \frac{n^4+3n^2}{7n^6+3n^4}$$

ERROR OR REMAINDER OF A SERIES

1. Estimate the remainder of the series using the first three terms.

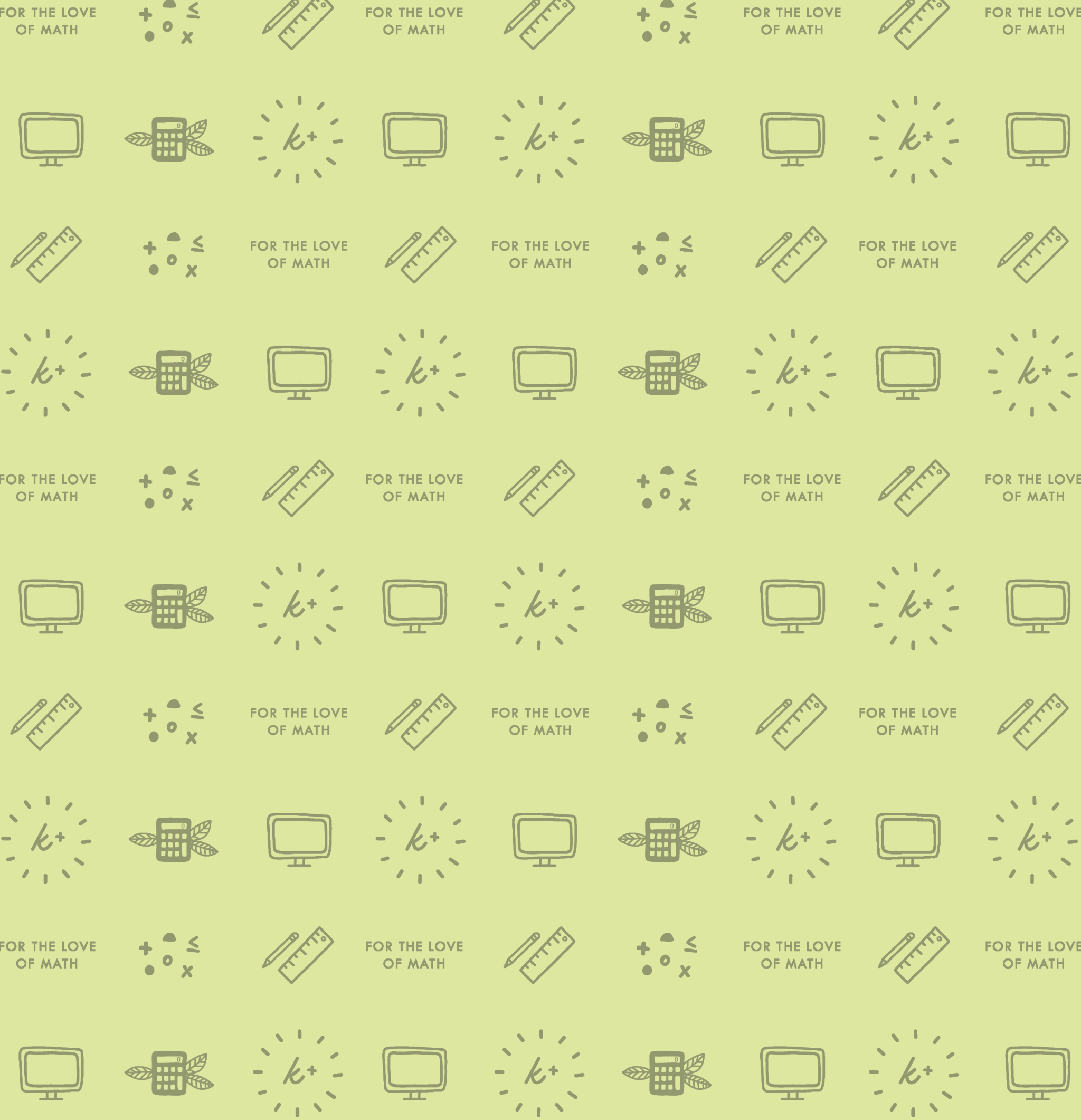
$$\sum_{n=1}^{\infty} \frac{3}{7n^3 + 2n^2 + 3}$$

2. Estimate the remainder of the series using the first three terms.

$$\sum_{n=1}^{\infty} \frac{5}{\sqrt{n^4 + 6}}$$

3. Estimate the remainder of the series using the first three terms.

$$\sum_{n=1}^{\infty} \frac{4n^2}{n^5 + n^2 + 3}$$


FOR THE LOVE OF MATH