Problem Set 3  Calculus 2  Due 10/22/2004

You are encouraged to work in groups of two to four on this assignment and make a single group submission. Each problem is worth 5 points. For full credit indicate clearly how you reached your answer. All work must be legible and submitted on clean paper without ragged edges.

1. Determine whether \( \sum_{n=1}^{\infty} \frac{(-1)^n}{2 + \sqrt{n}} \) converges or diverges.

2. Determine whether \( \sum_{n=0}^{\infty} \frac{e^n}{1 + e^{2n}} \) converges or diverges.

3. Determine whether \( \sum_{n=1}^{\infty} \frac{3}{3n - 1} \) converges or diverges.

4. Determine whether \( \sum_{n=1}^{\infty} \frac{1}{2^n - 1} \) converges or diverges.

5. Determine the interval of convergence of \( \frac{x}{3} + \frac{2x^2}{5} + \frac{3x^3}{7} + \frac{4x^4}{9} + \ldots \).

6. Determine the interval of convergence of \( \sum_{n=0}^{\infty} (-1)^n \frac{x^{2n}}{(2n)!} \).
You are encouraged to work in groups of two to four on this assignment and make a single group submission. Each problem is worth 5 points. For full credit indicate clearly how you reached your answer. All work must be legible and submitted on clean paper without ragged edges.

1. Determine whether \( \sum_{n=1}^{\infty} \frac{(-1)^n}{2 + \sqrt{n}} \) converges or diverges.

2. Determine whether \( \sum_{n=0}^{\infty} \frac{e^n}{1 + e^{2n}} \) converges or diverges.

3. Determine whether \( \sum_{n=1}^{\infty} \frac{3}{3n-1} \) converges or diverges.

4. Determine whether \( \sum_{n=1}^{\infty} \frac{1}{2^n - 1} \) converges or diverges.

5. Determine the interval of convergence of \( \frac{x^3}{3} + \frac{2x^2}{5} + \frac{3x^3}{7} + \frac{4x^4}{9} + \ldots \).

6. Determine the interval of convergence of \( \sum_{n=0}^{\infty} (-1)^n \frac{x^{2n}}{(2n)!} \).
1. Determine whether \( \sum_{n=1}^{\infty} \frac{(-1)^n}{2 + \sqrt{n}} \) converges or diverges.

2. Determine whether \( \sum_{n=0}^{\infty} \frac{e^n}{1 + e^{2n}} \) converges or diverges.

3. Determine whether \( \sum_{n=1}^{\infty} \frac{3}{3n-1} \) converges or diverges.

4. Determine whether \( \sum_{n=1}^{\infty} \frac{1}{2^n - 1} \) converges or diverges.

5. Determine the interval of convergence of \( \frac{x}{3} + \frac{2x^2}{5} + \frac{3x^3}{7} + \frac{4x^4}{9} + \ldots \).

6. Determine the interval of convergence of \( \sum_{n=0}^{\infty} (-1)^n \frac{x^{2n}}{(2n)!} \).
Problem Set 3    Calculus 2    Due 10/22/2004

You are encouraged to work in groups of two to four on this assignment and make a single group submission. Each problem is worth 5 points. For full credit indicate clearly how you reached your answer. All work must be legible and submitted on clean paper without ragged edges.

1. Determine whether \( \sum_{n=1}^{\infty} \frac{(-1)^n}{2 + \sqrt{n}} \) converges or diverges.

2. Determine whether \( \sum_{n=0}^{\infty} \frac{e^n}{1 + e^{2n}} \) converges or diverges.

3. Determine whether \( \sum_{n=1}^{\infty} \frac{3}{3n-1} \) converges or diverges.

4. Determine whether \( \sum_{n=1}^{\infty} \frac{1}{2^n - 1} \) converges or diverges.

5. Determine the interval of convergence of \( \frac{x}{3} + \frac{2x^2}{5} + \frac{3x^3}{7} + \frac{4x^4}{9} + \ldots \).

6. Determine the interval of convergence of \( \sum_{n=0}^{\infty} (-1)^n \frac{x^{2n}}{(2n)!} \).
You are encouraged to work in groups of two to four on this assignment and make a single group submission. Each problem is worth 5 points. For full credit indicate clearly how you reached your answer. All work must be legible and submitted on clean paper without ragged edges.

1. Determine whether \[ \sum_{n=1}^{\infty} \frac{(-1)^n}{2 + \sqrt{n}} \] converges or diverges.

2. Determine whether \[ \sum_{n=0}^{\infty} \frac{e^n}{1 + e^{2n}} \] converges or diverges.

3. Determine whether \[ \sum_{n=1}^{\infty} \frac{3}{3n - 1} \] converges or diverges.

4. Determine whether \[ \sum_{n=1}^{\infty} \frac{1}{2^n - 1} \] converges or diverges.

5. Determine the interval of convergence of \[ \frac{x}{3} + \frac{2x^2}{5} + \frac{3x^3}{7} + \frac{4x^4}{9} + \ldots. \]

6. Determine the interval of convergence of \[ \sum_{n=0}^{\infty} (-1)^n \frac{x^{2n}}{(2n)!}. \]
You are encouraged to work in groups of two to four on this assignment and make a single group submission. Each problem is worth 5 points. For full credit indicate clearly how you reached your answer. All work must be legible and submitted on clean paper without ragged edges.

1. Determine whether \( \sum_{n=1}^{\infty} \frac{(-1)^n}{2 + \sqrt{n}} \) converges or diverges.

2. Determine whether \( \sum_{n=0}^{\infty} \frac{e^n}{1 + e^{2n}} \) converges or diverges.

3. Determine whether \( \sum_{n=1}^{\infty} \frac{3}{3n - 1} \) converges or diverges.

4. Determine whether \( \sum_{n=1}^{\infty} \frac{1}{2^n - 1} \) converges or diverges.

5. Determine the interval of convergence of \( \frac{x}{3} + \frac{2x^2}{5} + \frac{3x^3}{7} + \frac{4x^4}{9} + \ldots \).

6. Determine the interval of convergence of \( \sum_{n=0}^{\infty} (-1)^n \frac{x^{2n}}{(2n)!} \).
You are encouraged to work in groups of two to four on this assignment and make a single group submission. Each problem is worth 5 points. For full credit indicate clearly how you reached your answer. All work must be legible and submitted on clean paper without ragged edges.

1. Determine whether \( \sum_{n=1}^{\infty} \frac{(-1)^n}{2 + \sqrt{n}} \) converges or diverges.

2. Determine whether \( \sum_{n=0}^{\infty} \frac{e^n}{1 + e^{2n}} \) converges or diverges.

3. Determine whether \( \sum_{n=1}^{\infty} \frac{3}{3n-1} \) converges or diverges.

4. Determine whether \( \sum_{n=1}^{\infty} \frac{1}{2^n - 1} \) converges or diverges.

5. Determine the interval of convergence of \( \frac{x}{3} + \frac{2x^2}{5} + \frac{3x^3}{7} + \frac{4x^4}{9} + \ldots \).

6. Determine the interval of convergence of \( \sum_{n=0}^{\infty} (-1)^n \frac{x^{2n}}{(2n)!} \).
Problem Set 3 Calculus 2 Due 10/22/2004

You are encouraged to work in groups of two to four on this assignment and make a single group submission. Each problem is worth 5 points. For full credit indicate clearly how you reached your answer. All work must be legible and submitted on clean paper without ragged edges.

1. Determine whether \( \sum_{n=1}^{\infty} \frac{(-1)^n}{2 + \sqrt{n}} \) converges or diverges.

2. Determine whether \( \sum_{n=0}^{\infty} \frac{e^n}{1 + e^{2n}} \) converges or diverges.

3. Determine whether \( \sum_{n=1}^{\infty} \frac{3}{3n-1} \) converges or diverges.

4. Determine whether \( \sum_{n=1}^{\infty} \frac{1}{2^n - 1} \) converges or diverges.

5. Determine the interval of convergence of \( \frac{x}{3} + \frac{2x^2}{5} + \frac{3x^3}{7} + \frac{4x^4}{9} + \ldots \).

6. Determine the interval of convergence of \( \sum_{n=0}^{\infty} (-1)^n \frac{x^{2n}}{(2n)!} \).
Problem Set 3  Calculus 2  Due 10/22/2004

You are encouraged to work in groups of two to four on this assignment and make a single group submission. Each problem is worth 5 points. For full credit indicate clearly how you reached your answer. All work must be legible and submitted on clean paper without ragged edges.

1. Determine whether \( \sum_{n=1}^{\infty} \frac{(−1)^n}{2 + \sqrt{n}} \) converges or diverges.

2. Determine whether \( \sum_{n=0}^{\infty} \frac{e^n}{1 + e^{2n}} \) converges or diverges.

3. Determine whether \( \sum_{n=1}^{\infty} \frac{3}{3n−1} \) converges or diverges.

4. Determine whether \( \sum_{n=1}^{\infty} \frac{1}{2^n−1} \) converges or diverges.

5. Determine the interval of convergence of \( \frac{x}{3} + \frac{2x^2}{5} + \frac{3x^3}{7} + \frac{4x^4}{9} + \ldots \).

6. Determine the interval of convergence of \( \sum_{n=0}^{\infty} (−1)^n \frac{x^{2n}}{(2n)!} \).
You are encouraged to work in groups of two to four on this assignment and make a single group submission. Each problem is worth 5 points. For full credit indicate clearly how you reached your answer. All work must be legible and submitted on clean paper without ragged edges.

1. Determine whether \( \sum_{n=1}^{\infty} \frac{(-1)^n}{2 + \sqrt{n}} \) converges or diverges.

2. Determine whether \( \sum_{n=0}^{\infty} \frac{e^n}{1 + e^{2n}} \) converges or diverges.

3. Determine whether \( \sum_{n=1}^{\infty} \frac{3}{3n - 1} \) converges or diverges.

4. Determine whether \( \sum_{n=1}^{\infty} \frac{1}{2^n - 1} \) converges or diverges.

5. Determine the interval of convergence of \( \frac{x}{3} + \frac{2x^2}{5} + \frac{3x^3}{7} + \frac{4x^4}{9} + \ldots \).

6. Determine the interval of convergence of \( \sum_{n=0}^{\infty} (-1)^n \frac{x^{2n}}{(2n)!} \).
You are encouraged to work in groups of two to four on this assignment and make a single group submission. Each problem is worth 5 points. For full credit indicate clearly how you reached your answer. All work must be legible and submitted on clean paper without ragged edges.

1. Determine whether \( \sum_{n=1}^{\infty} \frac{(-1)^n}{2 + \sqrt{n}} \) converges or diverges.

2. Determine whether \( \sum_{n=0}^{\infty} \frac{e^n}{1 + e^{2n}} \) converges or diverges.

3. Determine whether \( \sum_{n=1}^{\infty} \frac{3}{3n - 1} \) converges or diverges.

4. Determine whether \( \sum_{n=1}^{\infty} \frac{1}{2^n - 1} \) converges or diverges.

5. Determine the interval of convergence of \( \frac{x}{3} + \frac{2x^2}{5} + \frac{3x^3}{7} + \frac{4x^4}{9} + \ldots \).

6. Determine the interval of convergence of \( \sum_{n=0}^{\infty} (-1)^n \frac{x^{2n}}{(2n)!} \).
Problem Set 3  Calculus 2  Due 10/22/2004

You are encouraged to work in groups of two to four on this assignment and make a single group submission. Each problem is worth 5 points. For full credit indicate clearly how you reached your answer. All work must be legible and submitted on clean paper without ragged edges.

1. Determine whether \( \sum_{n=1}^{\infty} \frac{(-1)^n}{2 + \sqrt{n}} \) converges or diverges.

2. Determine whether \( \sum_{n=0}^{\infty} \frac{e^n}{1 + e^{2n}} \) converges or diverges.

3. Determine whether \( \sum_{n=1}^{\infty} \frac{3}{3n - 1} \) converges or diverges.

4. Determine whether \( \sum_{n=1}^{\infty} \frac{1}{2^n - 1} \) converges or diverges.

5. Determine the interval of convergence of \( \frac{x}{3} + \frac{2x^2}{5} + \frac{3x^3}{7} + \frac{4x^4}{9} + \ldots \).

6. Determine the interval of convergence of \( \sum_{n=0}^{\infty} (-1)^n \frac{x^{2n}}{(2n)!} \).
You are encouraged to work in groups of two to four on this assignment and make a single group submission. Each problem is worth 5 points. For full credit indicate clearly how you reached your answer. All work must be legible and submitted on clean paper without ragged edges.

1. Determine whether \( \sum_{n=1}^{\infty} \frac{(-1)^n}{2 + \sqrt{n}} \) converges or diverges.

2. Determine whether \( \sum_{n=0}^{\infty} \frac{e^n}{1 + e^{2n}} \) converges or diverges.

3. Determine whether \( \sum_{n=1}^{\infty} \frac{3}{3n-1} \) converges or diverges.

4. Determine whether \( \sum_{n=1}^{\infty} \frac{1}{2^n - 1} \) converges or diverges.

5. Determine the interval of convergence of \( \frac{x}{3} + \frac{2x^2}{5} + \frac{3x^3}{7} + \frac{4x^4}{9} + \ldots \).

6. Determine the interval of convergence of \( \sum_{n=0}^{\infty} \frac{(-1)^n x^{2n}}{(2n)!} \).