10.9 Absolute or Conditional Convergence

Calculus Name: _____ **CA #2**

1. For what values of x is the series $\sum_{n=0}^{\infty}(-1)^n(3x-2)^n$ absolutely convergent?

2. For what values of x is the series $\sum_{n=1}^{\infty}\frac{(x-2)^n}{n}$ conditionally convergent?

A. $x=1$ B. $x=3$ C. $1<x<3$ D. $x>3$

3. Which of the following statements is true about the series $\sum_{n=1}^{\infty}\frac{\cos(n\pi)}{n}$.

A. The series converges conditionally.

B. The series converges absolutely.

C. The series converges but neither conditionally nor absolutely.

D. The series diverges.

4. Determine whether the series $\sum_{n=1}^{\infty}\frac{(-1)^{n+1}}{n+1}$ converges absolutely, converges conditionally, or diverges.

5. Determine whether the series $\sum_{n=1}^{\infty} \frac{(-1)^n}{(2n+1)!}$ converges absolutely, converges conditionally, or diverges.

Answers to 10.9 CA #2

1. $\frac{1}{3} < x < 1$	2. A	3. A	4. Converges Conditionally	5. Converges Absolutely