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1. For the series below, **(a)** find the series' radius and interval of convergence. For what values of x does the series converge **(b)** absolutely, **(c)** conditionally?

$$\sum_{n=0}^{\infty} x^n$$

(a) Find the series' radius and interval of convergence.

The series' radius of convergence is 1 .

What is the series' interval of convergence?

- **A.** x =
- **B.** −1 < x < 1

(b) For what values of x does the series converge absolutely? Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

- **A.** x = (Use a comma to separate answers as needed.)
- **B.** −1 < x < 1
- **C.** The series converges absolutely for all values of x.
- **D.** The series does not converge absolutely for any values of x.

(c) For what values of x does the series converge conditionally? Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

- **A.** x = (Use a comma to separate answers as needed.)
- **B.** < x <
- **C.** The series converges conditionally for all values of x.
- **D.** The series does not converge conditionally for any values of x.