MAT 137 (Calculus II) Prof. Swift

Quiz 6, Tests for Convergence Name: key

For this quiz, you *may* work with other people. You may consult your notes. You may leave the class after you turn in your quiz.

Series A is $\sum_{n=2}^{\infty} \frac{1}{\sqrt{n^3+1}}$, series B is $\sum_{n=0}^{\infty} e^{-n}$, and series C is $\sum_{n=1}^{\infty} \frac{(-1)^{n-1}n}{1+n}$.

Put an A in one of the blanks, put B in one of the blanks, and put C in one the of the blanks.

Put B in one blanks, your choice which of the 2.

___ converges by the test for divergence.	C diverges by the test for divergence.
easy → B is a convergent geometric series.	___ is a divergent geometric series.
___ is a convergent p-series.	___ is a divergent p-series.
hard → B converges by the integral test.	___ diverges by the integral test.
A converges by the comparison test.	___ diverges by the comparison test.
___ converges by the alternating series test.	___ diverges by the alternating series test.
___ converges by the absolute convergence test.	___ diverges by the absolute convergence test.

Cross out the 3 choices in that list that can *never* be the correct choice for any series.