Tests 11.2 - 11.6.*	Requirements for application	If this is true...	Then we conclude...
limit test for divergence	Any a_n	$\lim_{n\to\infty} a_n \neq 0$	$\sum a_n$ diverges
		$\lim_{n\to\infty} a_n = 0$	inconclusive
geo. series	$a_n = r^n$	$\lvert r\rvert < 1$	$\sum_{n=1}^{\infty}(r)^n$ converges to $\frac{r}{1-r}$
		$\lvert r\rvert \geq 1$	$\sum (r)^n$ diverges
p-series	$a_n = \frac{1}{n^p}$	$p > 1$	$\sum a_n$ converges
		$p \leq 1$	$\sum a_n$ diverges
integral test	$a_n = f(n)$; $f(x) > 0$, continuous and decreasing on $[1,\infty)$	$\int_1^{\infty} f(x)\,dx$ converges	$\sum a_n$ converges
		$\int_1^{\infty} f(x)\,dx$ diverges	$\sum a_n$ diverges
comparison test	$a_n > 0$ Known $b_n > 0$	$a_n \leq b_n$, $\sum b_n$ converges	$\sum a_n$ converges
		$a_n \geq b_n$, $\sum b_n$ diverges	$\sum a_n$ diverges
limit comparison test	$a_n > 0$ Known $b_n > 0$	$\lim_{n\to\infty} \frac{a_n}{b_n} = L$, $0 < L < \infty$ and $\sum b_n$ converges	$\sum a_n$ converges
		$\lim_{n\to\infty} \frac{a_n}{b_n} = L$, $0 < L < \infty$ and $\sum b_n$ diverges	$\sum a_n$ diverges
		$\lim_{n\to\infty} \frac{a_n}{b_n} = 0$ or ∞, or DNE	inconclusive
alternating series	$a_n > 0$ $a_{n+1} \leq a_n$	$\lim_{n\to\infty} a_n = 0$	$\sum (-1)^n a_n$ converges
		otherwise	inconclusive
* absolute convergence	Any a_n	$\sum_{n=1}^{\infty} \lvert a_n\rvert$ converges	$\sum a_n$ converges
		$\sum^{\infty} \lvert a_n\rvert$ diverges	inconclusive
combinations	Any a_n, b_n, $c \in \mathbb{R}$ $d \in \mathbb{R}$	$\sum a_n$ converges and $\sum b_n$ converges	$\sum (ca_n + db_n)$ converges

More Convergence testing	Requirements for application.	If this is true...	Then we conclude
Ratio test	Any, but useful with $n!$ and x^n.	$\lim\limits_{n\to\infty} \left\lvert \frac{a_{n+1}}{a_n} \right\rvert = L < 1$	$\sum\limits_{n=1}^{\infty} a_n$ converges absolutely.
		$\lim\limits_{n\to\infty} \left\lvert \frac{a_{n+1}}{a_n} \right\rvert = L > 1$	$\sum\limits_{n=1}^{\infty} a_n$ diverges
		$\lim\limits_{n\to\infty} \left\lvert \frac{a_{n+1}}{a_n} \right\rvert = 1$	inconclusive
Root test	Any, but useful when there's an overall power of n.	$\lim\limits_{n\to\infty} \lvert a_n \rvert^{\frac{1}{n}} = L < 1$	$\sum\limits_{n=1}^{\infty} a_n$ converges absolutely
		$\lim\limits_{n\to\infty} \lvert a_n \rvert^{\frac{1}{n}} = L > 1$	$\sum\limits_{n=1}^{\infty} a_n$ diverges
		$\lim\limits_{n\to\infty} \lvert a_n \rvert^{1/n} = 1$	inconclusive
Ratio test for power series	looks like: $\sum\limits_{n=0}^{\infty} C_n x^n$ or $\sum\limits_{n=0}^{\infty} C_n (x-a)^n$	Use Ratio test: same conclusion as above with $L < 1$, but L is a function of x. Solve to find radius R around a.	
End points for power series	Plug in $a+R$ and $a-R$ get $\sum C_n R^n$ and $\sum C_n (-R)^n$	Use any of: alt. series test, lim test for divergence, geometric series, or p-series to decide which endpoint(s) converge / diverge.	