

Sequences	Series	Integral Test	Comparison & Alternating Series Test	Random
100 List the first 4 terms starting at $n=0$: $4n/n^2-7$ <hr/> $a_0=0$ $a_1=-2/3$ $a_2=-8/3$ $a_3=6$	100 Find the first TWO terms; $n=1$ $\sum n2^n$ <hr/> $S_1=2$ $S_2=10$	100 Determine if the series converges or diverges $\sum_{n=1} 1 / 3\sqrt{n^5}$ <hr/> Converges to $5/3$ (p-series)	100 $\sum_{n=4} (n^2)/(n^3-3)$ <hr/> Diverges (Harmonic series)	100 What is the name of the camp in Friday the 13th? <hr/> Camp Crystal Lake
200 Determine the rule for the sequence: $\{4, -12, 36, -108, 324, \dots\}$ <hr/> $a_n=4(-3)^{n-1}$	200 Determine if converges or diverges: $S_n=(5+8n^2)/(2-7n^2)$ <hr/> Converges to $-8/7$	200 Determine if the series conv or div: $\sum_{n=1} ne^{-n^2}$ <hr/> Converges to $1/2e$	200 $\sum_{n=2} (n-1)/n(n+1)$ <hr/> Converges via Comparison Test	200 How many people were Ghostface in the first Scream movie? <hr/> Two
300 Determine the rule for the sequence: $\{2, 11, 20, 29, 38, \dots\}$ <hr/> $a_n=9n-7$ OR $2+9(n-1)$	300 Determine if the series converges or diverges: $S_n=(n^2)/(5+2n)$ <hr/> Diverges	300 Determine if the series converges or diverges: $\sum_{n=2} 1/(2n+7)^3$ <hr/> Converges to $1/484$	300 Use alternating series test: $\sum_{n=1} (-1)^{n-1}/7+2n$ <hr/> Converges by AST	300 Which two horror movie franchises were first video game series? <hr/> Silent Hill & Resident Evil
400 Determine if the sequence converges or diverges. $\lim (3n^2-1) / (5n^2+4n)$ (as n goes to infinity) <hr/> Converges to $3/5$	400 Determine if series converges or diverges: $\sum 3^{2+n}2^{1-3n}$ <hr/> Converges to $144/5$	400 Determine if the series converges or diverges: $\sum_{n=2} 1/n*\ln(n)$ <hr/> Diverges	400 $\sum_{n=0} (-1)^{n+3}/n^3+4n+1$ <hr/> Converges	400 Who directed the horror movies Get Out, Us, and N.O.P.E? <hr/> Jordan Peele
500 Determine if the sequence converges or diverges: $\cos(n*\pi)$ <hr/> Diverges (alternates between -1 & 1)	500 Determine if the series converges or diverges: $\sum (3)/(n^2+7n+12)$ <hr/> Converges to $3/4$	500 Determine if the series converges or diverges: $\sum_{n=0} 2/3+5n$ <hr/> Diverges	500 $\sum_{n=0} (-1)^{n+6}/n^2+9$ <hr/> Converges	500 What is the highest-grossing horror movie of all time? <hr/> IT