

Math 116 Fall 2016 Exam 2 Answers

1) a) 2

b) 5

c) 0 and 4, for example.

2) $f(x) = xe^{-3x}$, use this to check.

3) a) $\lim_{k \rightarrow \infty} S_k = L$ where L is a number and $S_k = \sum_{n=1}^k a_n$.

b) $S_k = \sqrt{k+1} - 1$, take the limit

4) a) converges to $-\frac{8}{17}$

b) converges to $-1024 \sin(4)$

5) e^8

6) $-\frac{3}{2} \sum_{n=0}^{\infty} \frac{(x+2)^{2n+1}}{2^n}$