

Name:
J#:
Date: 2017 July 14

Exercise Type (Cost):
In-Class (1AP)

Standard: This student is able to...	Mark:
C06: AreaBtCurv. Express an area between curves as a definite integral.	
Extra2	★ reattempt due on:

Find a definite integral equal to the area bounded by $x = y^2 + 1$ and $x = 3 - y^2$.

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Standard: This student is able to... C12: PartSum. Find the value of a convergent series by expressing it as a limit of partial sums.	Mark:
4/4	★ reattempt due on:

Find a formula for the partial sum $s_n = a_0 + a_1 + \cdots + a_n$ where $a_n = (\frac{2}{n+3} - \frac{2}{n+4})$. Then use this formula to find the value of $\sum_{n=0}^{\infty} (\frac{2}{n+3} - \frac{2}{n+4}) = (\frac{2}{3} - \frac{2}{4}) + (\frac{2}{4} - \frac{2}{5}) + \cdots$

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Standard: This student is able to...	Mark:
S11: GeoAlt. Determine if a geometric series or alternating series is convergent or divergent.	
3/3	★ reattempt due on:

Recall that the geometric series $\sum_{n=0}^{\infty} ar^n$ converges to $\frac{a}{1-r}$ when $|r| < 1$ and diverges otherwise.

Does the series $\sum_{k=1}^{\infty} (-1)^{k+1} \frac{5}{4^{k-1}} = 5 - \frac{5}{4} + \frac{5}{16} - \frac{5}{64} + \dots$ converge or diverge? If it converges, what is its value?

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Standard: This student is able to...	Mark:
S12: IntTest. Use the integral test to determine series convergence.	
2/3	★ reattempt due on:

Does $\int_1^\infty \frac{2x}{x^2+1} dx$ converge or diverge?

Does $\sum_{m=0}^\infty \frac{2m}{m^2+1}$ converge or diverge?

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Standard: This student is able to... S13: RatioRoot. Use the ratio and root tests to determine series convergence.	Mark:
1/3 ★ reattempt due on:	

Does $\sum_{m=0}^{\infty} \frac{m!}{3^{2m}} = 1 + \frac{1}{9} + \frac{2}{81} + \frac{6}{729} + \dots$ converge or diverge?