

Name:
J#:
Date: 2017 July 10

Exercise Type (Cost):

In-Class (1AP)

Standard: This student is able to...	Mark:
C08: Work. Express the work done in a system as a definite integral.	
Extra1	★ reattempt due on:

As a worker lifted a leaky sandbag from the ground, it lost sand weight at a constant rate. Assuming it weighed 30 newtons on the ground, and weighed 15 newtons after being lifted 3 meters, what work was required to lift the sandbag 3 meters? (Do not solve your integral.)

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Standard: This student is able to... S11: SeqForm. Define and use explicit and recursive formulas for sequences.	Mark:
3/3	★ reattempt due on:

Find a recursive formula for the sequence $\langle 3, 4, 6, 9, 13, 18, \dots \rangle$. (You may choose whatever starting index you like.)

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Standard: This student is able to... C11: SeqLim. Compute the limit of a convergent sequence.	Mark:
2/4 ★ reattempt due on:	

Use L'Hoptial's Rule to find $\lim_{m \rightarrow \infty} \frac{e^{m^2} + 7}{e^{m^2+1}}$.

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In-Class (1AP)

Standard: This student is able to...	Mark:
C12: PartSum. Find the value of a convergent series by expressing it as a limit of partial sums.	
1/4	★ reattempt due on:

Find a formula for the partial sum $s_n = a_0 + a_1 + \cdots + a_n$ where $a_n = \frac{2}{3^n}$. Then use this formula to prove that $\sum_{m=0}^{\infty} \frac{2}{3^m} = 2 + \frac{2}{3} + \frac{2}{9} + \cdots = 3$.