

Name:
J#:
Date: <b>2017 July 11</b>

Exercise Type (Cost):

**In-Class (1AP)**

Standard: This student is able to...	Mark:
<b>C08: Work.</b> 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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**In-Class (1AP)**

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

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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**In-Class (1AP)**

Standard: This student is able to... <b>C11: SeqLim.</b> 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:
<b>C12: PartSum.</b> 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  $\sum_{m=0}^{\infty} \frac{2}{3^m} = 2 + \frac{2}{3} + \frac{2}{9} + \cdots = 3$ .