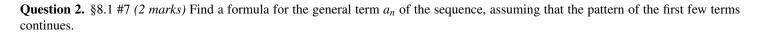
	Dawson Co	ollege: Calo	culus II: 20	01-NYB-05	-S3: Fall	2010
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Name:	
Student ID:	

## Quiz 11

This quiz is graded out of 10 marks. No books, calculators, notes or cell phones are allowed. You must show all your work, the correct answer is worth 1 mark the remaining marks are given for the work. If you need more space for your answer use the back of the page.

**Question 1.** §7.4 #24 (5 marks) A conic tank is filled with liquid chocolate which has a density of  $\rho = 1200 \frac{kg}{m^3}$ . If the tank is 2m across the top and has a height of 3m, set up the integral that represent the work performed to empty half the tank of chocolate through a pipe that extends 7m above the top edge?  $\left(g = 9.8 \frac{m}{s^2}\right)$ 



 $\{2,7,12,17,\ldots\}$ 

Question 3. §8.1 #17 (3 marks) Determine whether the sequence converges or diverges. If it converges, find the limit.

$$\left\{\frac{e^n + e^{-n}}{e^{2n} - 1}\right\}$$