Dawson College	Calculus II	SCIENCE	: 201-NYB-05-S4:	Winter 2011
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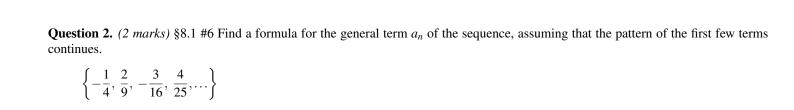
Quiz 9

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. (5 marks) §7.3 #17

Use the method of cylindrical shells to find the volume generated by rotating the region bounded by the given curves about the specified axis. Sketch the region and a representative rectangle.

$$y = x^2$$
, $y = 0$, $x = 1$, $x = 2$; about $x = 4$



Question 3. (3 marks) §8.1 #19 Determine whether the sequence converges or diverges. If it converges, find the limit.

 $\left\{n^2e^{-n}\right\}$

Bonus. (5 marks) Evaluate the improper integral or show it diverges:

$$\int_{-\infty}^{\infty} \frac{1}{2x^2 - 4x + 4} \ dx$$