

## Learning Conversations on MRGS iLearn

Below are excerpts from 3 teachers' use of Forums on iLearns.

### Mr ELEY 13 Calculus –

Section	Forum	Description	Discussions	Un
8	<a href="#">Mr Eley's Revision Forum</a>	Please put any questions you have here! Create a new discussion topic for each new question.	18	

Students are using the forum to ask Exam revision questions. They are able to include pictures and persevere with the conversation until they feel they have a good understanding.

Their teacher responds within a few hours of the question. Also, students are asking at all times of the day and night and on weekends. Three student conversations are listed below.

#### STUDENT B



Help!!!

By B - Tuesday, 8 November 2011, 10:26 AM

Hi sir, got a question. Anyone that knows please show me how to do it.

Integrate the following:

$$4\cos(5x) / \sin^2(5x)$$



Re: Help!!!

by [Jonathan Eley](#) - Tuesday, 8 November 2011, 12:39 PM

Hi Ben

There are a couple of ways to tackle this one

- 1) you can use a substitution of  $u=\sin(5x)$  and then you'll find the  $\cos(5x)$  will cancel out when you rewrite in terms of  $u$
- 2) you can bring  $\sin^2(5x)$  above the line and then use the try method, i.e. try  $(\sin(5x))^{-1}$ , differentiate and then adjust the coefficients until you get the

answer under the integral sign

Hope this helps

Cheers

PS where is the question from?



Re: Help!!!

by B Friday, 11 November 2011, 07:32 AM

Oh sweet, yeah the substitution method is easy. Thanks sir 😊

Its from a resource I was given at step up, pages and pages of these things.

## Student J – who is asking questions well outside of Monday 9-3



Re: Differentiation 2009 Exam Question 1d  
by J - **Sunday, 13 November 2011, 12:17 AM**

Hey sir, just another question

could you explain/ show the working for the steps in the box that's highlighted?  
Thanks =)

The function  $f$  is given by:

$$f(x) = e^{\frac{x}{1+kv}}, \text{ where } k \text{ is a positive constant.}$$

Prove that  $f(x)$  has a point of inflection at  $x = \frac{1}{2k^2} - \frac{1}{k}$ .

Give any derivatives you need to find when solving this problem.

$$f'(x) = e^{\frac{x}{1+kv}} \cdot \frac{1+kv - kv}{(1+kv)^2}$$

$$= \frac{1}{(1+kv)^2} \cdot e^{\frac{x}{1+kv}}$$

$$f''(x) = \frac{1}{(1+kv)^4} \cdot e^{\frac{x}{1+kv}} \cdot \frac{-2k}{(1+kv)^3}$$

$$f''(x) = 0$$

$$e^{\frac{x}{1+kv}} \cdot \frac{1}{(1+kv)^3} [1+kv - 2k] = 0$$

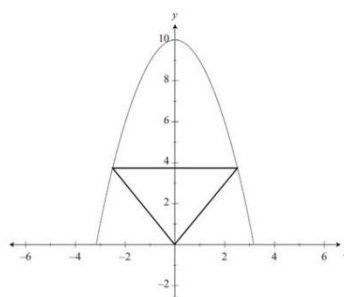
$$\frac{1}{1+kv} - 2k = 0$$

$$1 = 2k + 2k^2x$$

$$1 - 2k = 2k^2x$$

$$x = \frac{1}{2k^2} - \frac{1}{k}$$

(c) An isosceles triangle is shown below.



One vertex of the triangle is at  $(0,0)$ .  
The other two vertices are on the curve  $y = 10 - x^2$ , both vertices having the same  $y$  coordinate.

Find the maximum possible area,  $A$ , of such a triangle.

You may assume that  $\frac{d^2A}{dx^2} < 0$ .

$$\text{Area} = \frac{1}{2}bh$$

$$= xy$$

$$= x(10 - x^2)$$

$$= 10x - x^3$$

Also this question I don't understand the first and second step...



Re: Differentiation 2009 Exam Question 1d  
by [Jonathan Eley](#) - Sunday, 13 November 2011, 02:57 PM

Hi Jeffrey

Other than the funny Z's in this answer, in the box

1st line= simplified  $f'(x)$

2nd line=  $f''(x)$  using the product rule

3rd line= showing that we need  $f''(x)=0$  for a point of inflection

4th line=taking common factor out and then putting the part in brackets equal to zero as the part that you have outside of the brackets can't be equal to zero as it has  $e^{\frac{x}{1+kv}}$

Hope this helps



Re: Differentiation 2009 Exam Question 1d  
by [Jonathan Eley](#) - Sunday, 13 November 2011, 03:05 PM

We want the maximum area of the triangle.

1) The area of a triangle  $A = 0.5 \cdot b \cdot h$  (half the base times the height)

.....

## Student D – lots of questions at all hours too



Holiday Homework Sheet

by D - Saturday, 15 October 2011, 03:58 PM

Hi Mr Eley

I hope you had a good first week of the holidays.

Now when doing the homework sheet there were some questions that I found difficult to get an answer, difficult to start or not sure if my answer was right. These were mostly excellence and the more difficult merit questions.

For example, I have difficulties starting question 7 for differentiation, not sure if my answer is right for question 9 for differentiation, difficulties on question 8 for integration and difficulties on question 6 for complex numbers.

Is there any way you are going to provide hints and/or answers so I can have a starter or check some answers to this homework sheet? Because I am keen to try to find a correct answer to those four challenging questions once I get a better grasp of the correct methods to solving them.

Obviously I will finish each question before I want to see the answers.

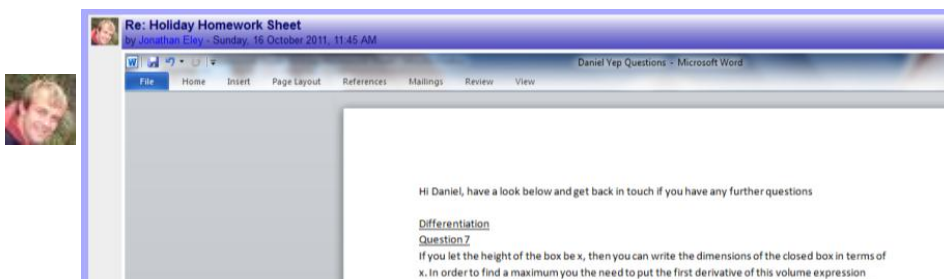
Cheers,

D

Re: Holiday Homework Sheet

by Jonathan Eley - Sunday, 16 October 2011, 11:45 AM

*sends a screenshot of model answers*



Re: Holiday Homework Sheet

by D Wednesday, 19 October 2011, 02:29 PM

Hi Mr Eley

Thanks for your hints and answers. However, I still have further questions.

For integration 8, I got an incorrect answer of  $3.2\pi^3$  (sorry cannot work out how to type the pi symbol). At this stage not too sure why I have got 3.2 instead of 32 and do not see the dividing by 15 step. For differentiation 9, I am having trouble finding an expression for  $dW/dV$ . Is that how...

*And so on ... But it's not all positive*

Conics Question 9

by D- Monday, 7 November 2011, 11:37 AM

Hi Mr Eley

On the conics sheet with three question nines, I am experiencing problems doing part 2 question 9 on the side with all the other eight questions. I got part 1 okay cause I already went over that with you in class or an after school tutorial. That's the question with about 15 different parabolas with various values of constant  $a$ . I have tried very hard to get the equation of the curve but so far haven't come up with any successful answer.

On the other side of the sheet I found starting the question nine on the left very difficult. The question on the right I almost got but unfortunately I am in a bit of a mess on the final step it seems. I did send you a message about if its okay to come and see you tomorrow (Tuesday) when you're not busy, bearing in mind my stats scho tutorial from 9:00am for about an hour or so.


This is because most of the time for the past few days I have been trying to access ilearn, the pages take too long to load or ilearn doesn't seem to work from my home. I am not sure why.


Cheers



## Year 10 Health Conversations with Miss Thomas


Feedback has been collected on using the forum as well as for specific questions. Again students are making comments outside the 9-3 school day. We also see students answering other students' questions.



Learning forums				
Section	Forum	Description	Discussions	Unr
4	Year 10 1st time users Forum 2011	How easy was it to access this page and complete the quiz first time you logged on?	5	
	1005 Homework discussions	<i>These discussion forums are designed to help build your knowledge on the subject and also provide you with additional information that you can use to help complete your magazine assessment. Think of it as a way of providing each other with additional information - you can also ask questions, ...</i>	10	
	Assessment Forum	<i>Use this forum to ask any question to do with the AS 1.5 Assessment (your magazine). Any student can reply to help answer a question, ask another question, post ideas, post web links to websites that may help with info etc.</i>	6	


 1009 1st time users  
by [Kim Thomas](#) - Friday, 27 May 2011, 02:42 PM  
Let us know you can get on. How easy/hard was the puberty quiz? What are your thoughts on doing an Achievement Standard on this topic


 Re: 1009 1st time users  
by xxxxxx - Monday, 30 May 2011, 07:05 PM  
easy & quick.. yeahp thts all :/

 Re: 1009 1st time users  
by xxxxxx - Monday, 30 May 2011, 06:57 PM  
*It was ok not that hard found it kinda easy.* 


 Re: 1009 1st time users  
by xxxxxx - Monday, 30 May 2011, 08:14 PM  
It's not that hard. :D


 Re: 1009 1st time users  
by xxxxxx - Monday, 30 May 2011, 08:55 PM  
hi karl hows it going P- I 

 Re: 1009 1st time users  
by xxxxxx - Monday, 30 May 2011, 09:54 PM  
It wasnt hard... I guess~

 Re: 1009 1st time users  
by xxxxxx - Tuesday, 31 May 2011, 10:19 AM

it was ok~

 Re: 1009 1st time users  
by xxxxxx - Tuesday, 31 May 2011, 10:23 AM  
it was ok.....

 Re: 1009 1st time users  
by xxxxxx - Tuesday, 31 May 2011, 06:36 PM  
pretty easy!

## Conversations started by a student working on a project



scenarios  
by aaaaaa - Thursday, 28 July 2011, 05:16 PM  
do the scenarios have to look like you're chatting or communicating to someone like a phone, chat or speech bubble



Re: scenarios  
by aaaaaa - Thursday, 28 July 2011, 05:58 PM  
i mean like when ur answering the questions does it hav to luk like ur chattin wid sumone



Re: scenarios (**a different student suggests an answer**)  
By bbbbbb - Friday, 29 July 2011, 11:15 AM (another student makes a suggestion)

Not necessarily I think, as long as you have the scenario there to read somewhere it'll be fine. I'm not sure though, probably better to wait for a teacher to answer.



Re: scenarios  
by [Kim Thomas](#) - Saturday, 30 July 2011, 04:04 PM

no not at all, that's only if u decide to do it like a chat scenario. You can answer the scenarios any way u wish



scenarios  
by aaaaaa - Sunday, 31 July 2011, 07:28 PM  
ok thnx



SECTION 3  
by cccccc - Sunday, 17 July 2011, 09:50 PM

WHAT DOES IT MEAN BY TWO METHODS THAT AROHA AND CARLOS COULD USE TO PROTECT THEMSELVES FROM STIS?DID WE LEARN THIS...



Re: SECTION 3  
by [Kim Thomas](#) - Monday, 18 July 2011, 04:05 PM

Yep, you learnt it early on in the term...2 methods of **contraception** that protect against STI's e.g condoms, regular STI check ups from the doctor/health centre, not having sex at all can be considered















Re: SECTION 3 (**a different student suggests an answer**)  
by bbbbbb - Wednesday, 20 July 2011, 05:38 PM

You could also check out this site...  
<http://www.pamf.org/teen/sex/std/protction.html>



Re: SECTION 3  
by cccccc - Thursday, 28 July 2011, 05:40 PM  
thank you soo much

## Anyone can set up learning forums –

Add a new discussion topic					
Discussion	Started by	Replies	Unread	Last post	
Algebra	 Lorna	1	2 ✓	Katrina Corrigan Wed, 16 Nov 2011, 10:48 PM	
Co-ordinate Geo	 David	3	4 ✓	Katrina Corrigan Wed, 16 Nov 2011, 08:25 PM	
co-ord geometry	 Sarah	3	4 ✓	Sarah Mon, 14 Nov 2011, 12:18 PM	
graph	 Shivika	1	2 ✓	Katrina Corrigan Sun, 13 Nov 2011, 07:56 PM	
algebra	 Shivika	1	0	Katrina Corrigan Thu, 3 Nov 2011, 09:17 AM	
maths	 Monisha	1	0	Katrina Corrigan Thu, 3 Nov 2011, 09:13 AM	
M/E Question	 David	1	0	Katrina Corrigan Wed, 26 Oct 2011, 07:23 PM	
E Algebra questions	 Simran	2	0	Simran Wed, 26 Oct 2011, 05:55 PM	
Algebra	 David	1	0	Katrina Corrigan Wed, 5 Oct 2011, 10:59 AM	
non linear graphs	 Sarah	1	0	Katrina Corrigan Wed, 5 Oct 2011, 10:34 AM	
Graph	 David	2	0	David Tue, 27 Sep 2011, 03:55 PM	
.....	 Steven	0	0	Steven Thu, 22 Sep 2011, 08:04 PM	

### Katrina's Exam Revision Forum – 12MATB

This is the activity that Katrina has managed to generate in the past few weeks. There are **30** comments/questions/answers posted here since the end of term 3. Many of these conversations happened during the Sept/Oct holidays.

The interesting thing about this forum is that the teacher found that starting to create and use iLearn was much easier than she had ever imagined after getting support from the e-Learning Lead team teachers in her department.