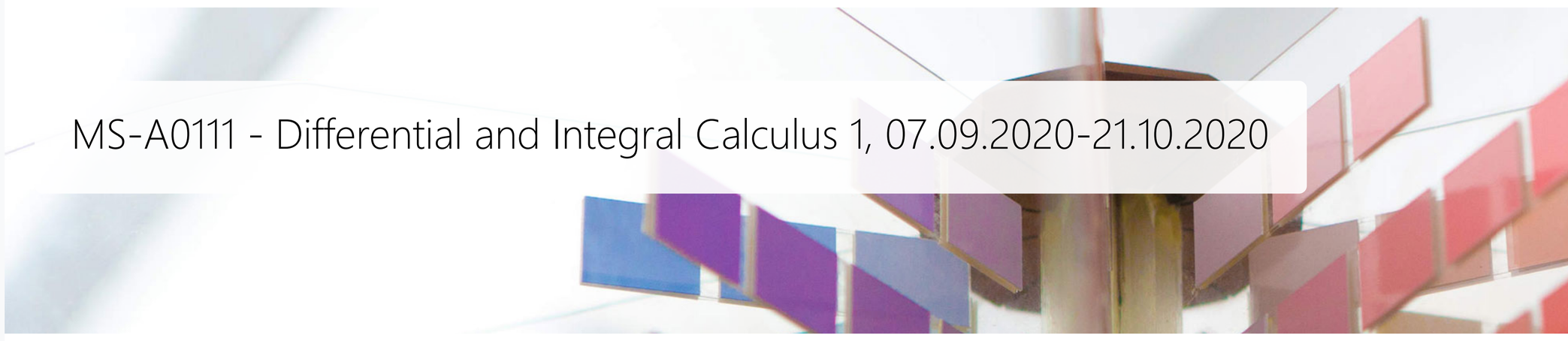

MS-A0111 - Differential and Integral Calculus 1, 07.09.2020-21.10.2020

Started on	Sunday, 4 June 2023, 11:59 AM
State	Finished
Completed on	Sunday, 4 June 2023, 12:03 PM
Time taken	3 mins 19 secs
Grade	**0.00** out of 3.00 (**0**%)

Quiz navigation

1 2 3

Finish review

Question **1**

Flag question Mark 0.00 out of 1.00 Incorrect

Solve $y'' + 2y' + y = x + 1$. (No need to use higher maths here!)

Select one or more:

- a. $x^2 + x + c_2 e^{-x} x + c_1 e^{-x} - 1$
- b. $x + c_2 e^{-x} x + c_1 e^{-x^2} - 1$ ✗ What?
- c. $x + c_2 e^{-x} x + c_1 e^{-x} - 1$

Your answer is incorrect.

The correct answer is: $x + c_2 e^{-x} x + c_1 e^{-x} - 1$

Question **2**

Flag question Mark 0.00 out of 1.00 Incorrect

Consider $y''(x) + 4y'(x) + 4y(x) = e^{-2x}$. What is the form of the solution?

Select one or more:

- a. Kxe^{-2x}
- b. Ke^{-2x} ✗ But that is the solution of the homogeneous problem?
- c. Kx^2e^{-2x}

Your answer is incorrect.

The correct answer is: Kx^2e^{-2x}

Question **3**

Flag question Mark 0.00 out of 1.00 Incorrect

Consider $y'' + 16y = \cos 4t$. What is the model of the solution? Is resonance possible?

Select one or more:

- a. $A \sin 4t$, yes.
- b. $At \sin 4t + Bt \cos 4t$, yes.
- c. $A \sin 4t + B \cos 4t$, yes. ✗ But where is that promised resonance?

Your answer is incorrect.

The correct answer is: $At \sin 4t + Bt \cos 4t$, yes.

Finish review

◄ Lecture 10 (Activation Quiz)

Problem Sheet 1 ►