

$$r_{12}^2, F_{12} = -K \frac{m_1 m_2}{r_{12}^2} \cdot \frac{r_{12}}{r_{12}}, \bar{\Gamma}$$

$$\Rightarrow \sin^2 \left(3t_p + \frac{\pi}{3} \right) = 1$$

$$\frac{\pi}{2} + n\pi; n = 0, 1, 2, \dots$$

$$\left(n + \frac{1}{6} \right); n = 0, 1, 2, \dots$$

$$\Rightarrow \cos^2 \left(3t_c + \frac{\pi}{3} \right) = 1 \Rightarrow \cos \left(3t_c + \frac{\pi}{3} \right) = \pm 1$$

$$\cos(n\pi) \Rightarrow t_c = \frac{\pi}{3} \left(n - \frac{1}{3} \right)$$

$$\int \frac{x}{\sqrt{1+x^2}} dx = J + \sqrt{1+x^2}$$

$$\frac{dx}{x^2+1} = - \int \frac{d\left(\frac{1}{x}\right)}{\sqrt{\frac{1}{x^2}+1}} = - \ln \left| \frac{\sqrt{1+x^2}+1}{x} \right| + C$$

$$T_1(1 - \varepsilon^{1/2}) + \nu C_\nu T_1(\mathcal{H} - 1),$$

$$\nu T_2(\mathcal{H} - 1) + \nu C T_4(1 - \varepsilon^{1/2}),$$

$$\mathcal{H}, \frac{T_3}{T_4} = \varepsilon^{1/2}, \frac{T_4}{T_1} = \mathcal{H}_1$$



Mathematics and Computer Science Study Day Wednesday 11th May 2022

St John's College is pleased to welcome applications for the Mathematics and Computer Science Study Day, which is open to non-selective state school pupils.

Are you **currently studying Maths at A-Level**, and interested in:

- Studying Maths at a top university?
- Receiving tuition from an Oxford Maths and Computer Science tutors?
- Examining Mathematics Admission Test-style questions with help from Oxford tutors and students?

To enter:

- Complete the application form on our website by **Friday 22nd of April 2022**

Please note, our study days are often oversubscribed and selection is based on academic merit*

*For further information on eligibility criteria, and application form, please see the College's website: <https://www.sjc.ox.ac.uk/discover/events/mathematics-and-computer-science-study-day-2022/>

What does the day involve?

- Mathematics and Computer Science application and interview advice
- Academic taster sessions led by Mathematics and Computer Sciences tutors
- MAT and interview workshops
- A Q&A session with current Mathematics and Computer Science students and tutors

All attendees will receive a certificate of participation

All events and resources are free to qualifying pupils. Travel Awards and Digital Assistance Awards are also available for eligible participants.



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If you have any questions or would like more information, please get in touch!

access@sjc.ox.ac.uk

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