



# Monitoria 5 de Outubro

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## Dicas gerais para disciplinas de computação

Trate as disciplinas de computação como as matérias teóricas e práticas



Anote os conceitos que você aprendeu para referência futura



Documente e organize em arquivos diferentes pedaços de códigos que são reutilizáveis



Aproveite a grande quantidade de materiais online para computação

## Indicação de conteúdos:

Fireship.io

<https://youtu.be/NMWzgy8FsKs>

Computerphile

<https://www.youtube.com/watch?v=PZRI1IfStY0&t=2s>

3Blue1Brown

[https://www.youtube.com/watch?v=3d6DsJIBzJ4&ab\\_channel=3Blue1Brown](https://www.youtube.com/watch?v=3d6DsJIBzJ4&ab_channel=3Blue1Brown)

## Exercício 5

#### Power iteration - Wikipedia

In mathematics, power iteration (also known as the power method) is an eigenvalue algorithm: given a diagonalizable matrix , the algorithm will produce a number , which is the greatest (in absolute value) eigenvalue of ,  
W [https://en.wikipedia.org/wiki/Power\\_iteration](https://en.wikipedia.org/wiki/Power_iteration)

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To apply the Power Method to a square matrix  $M$ , begin with an initial guess for the eigenvector  $x$  of the dominant eigenvalue. Multiply the most recently obtained vector on the left by  $M$ , normalize the result, and repeat the process until the answers converge to the desired eigenvector (or until it is clear the results are not converging). If convergence occurs, the norm of the final vector is the absolute value of the dominant eigenvalue.

## Projeto 2

### Derivadas e integrais

Essa é uma parte fundamental do cálculo numérico e da ciência da computação em geral!

<https://youtu.be/WUvTyaaNkzM>

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<https://youtu.be/rfG8ce4nNh0>

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