



[Course](#) > [Unit 1: Fourier Series](#) > [Recitation 2](#) > 1. Even and odd functions

**Audit Access Expires Jun 24, 2020**

You lose all access to this course, including your progress, on Jun 24, 2020.

Upgrade by Jun 7, 2020 to get unlimited access to the course as long as it exists on the site. [Upgrade now](#)

## 1. Even and odd functions

Find the even and odd parts

2/2 points (graded)

Every function  $g(x)$  can be written as the sum of an even and an odd function

$$g(x) = g_{\text{even}}(x) + g_{\text{odd}}(x),$$

where  $g_{\text{even}}(-x) = g_{\text{even}}(x)$  and  $g_{\text{odd}}(-x) = -g_{\text{odd}}(x)$ .

Find the even and odd parts of the function  $e^x$ .

Even part:

$(e^x + e^{-x})/2$



$$\frac{e^x + e^{-x}}{2}$$



Odd part:

$$(e^x - e^{-x})/2$$



$$\frac{e^x - e^{-x}}{2}$$

[FORMULA INPUT HELP](#)

Submit

✓ Correct (2/2 points)

## 1. Even and odd functions

**Topic:** Unit 1: Fourier Series / 1. Even and odd functions

[Hide Discussion](#)

Add a Post

Show all posts ▼

by recent activity ▼

💬 [HINT: Remembering Euler's Formula may be helpful!](#)

2 ▼

[Learn About Verified Certificates](#)

© All Rights Reserved

