

**Source:**

## 1 | Grading

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## 2 | Sum vs Direct Sum

- You can use the fact that when there's **two** subspaces whose intersection is 0.
  - But not when there's more than two subspaces. You have to add two of them into a subspace and then intersect that with the third one.
  - #question : does it work if the all pairwise intersections are zero?

## 3 | indefinite integral

#toexpand

### 3.1 | Intuition

Kind of like the integral from  $-\infty$  to a point? It's like the prefix sum, and we query by subtracting.

### 3.2 | It should have a constant?

### 3.3 | We can adjust an even function by a constant to make the $\int_{-1}^1 = 0$

- Like for  $y = x^2$ , we can translate down by three (becoming  $y = x^2 - 3$ ) to make  $\int_{-1}^1 = 0$