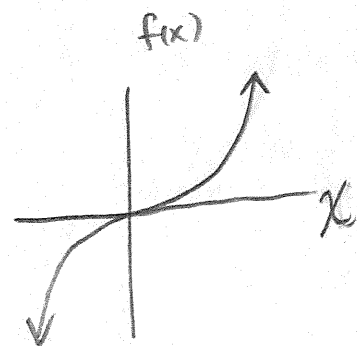
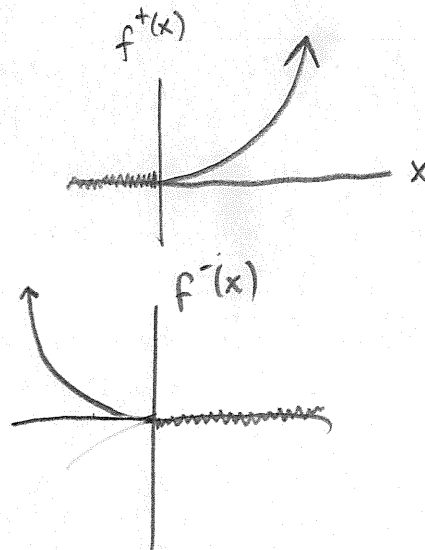


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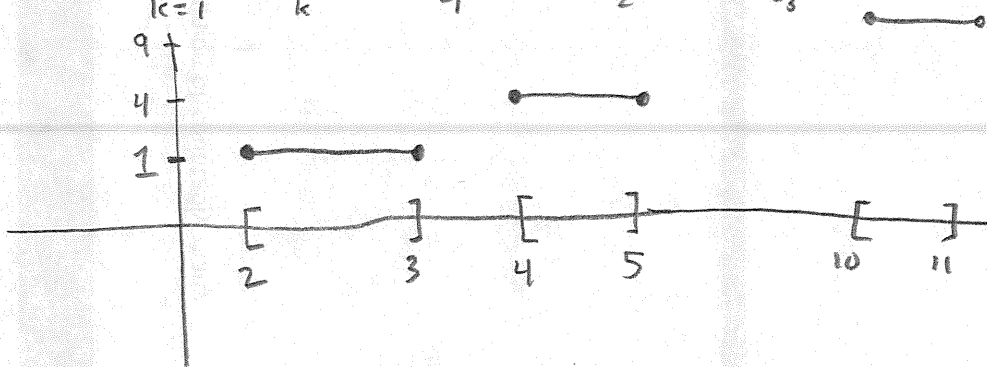
Quiz 14

① $f: \mathbb{R} \rightarrow \mathbb{R}$
 $f(x) = x^3$



② $E_1 = [0, 1]$, $E_2 = [2, 3] \cup [4, 5]$, $E_3 = [10, 11]$

$$\psi(x) = \sum_{k=1}^3 k^2 \chi_{E_k}(x) = \chi_{E_1}(x) + 4\chi_{E_2}(x) + 9\chi_{E_3}(x)$$



③ $\int \psi = 1 m(E_1) + 4 m(E_2) + 9 m(E_3)$
 $= m([2, 3]) + 4 m([4, 5]) + 9 m([10, 11])$
 $= 1 + 4 + 9$
 $= 14$