Bookmarks

- General Information
- Week 1
- Week 2
- Week 3
- Week 4
- Week 5
- Week 6

Lecture
Lecture questions due Oct 18, 2016 at 19:30 IST

Recitation

Problem Set 6
Homework 6 due Oct 18, 2016 at 19:30 IST

Week 6 > Problem Set 6 > Problem 4

Problem 4

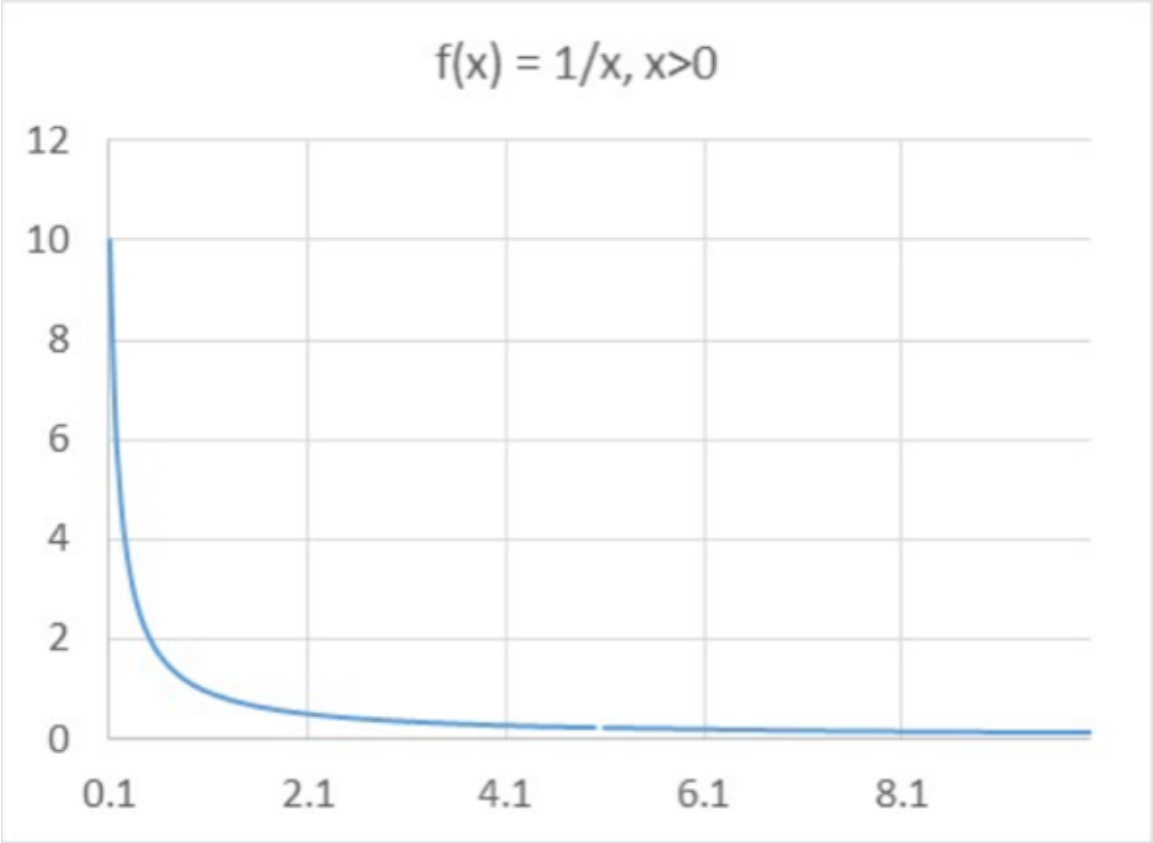
Bookmark this page

PART A

1/1 point (graded)

For each part, determine whether the function is convex or not over its domain.

- Exit Survey



$f(x) = \frac{1}{x}$ for $x > 0$

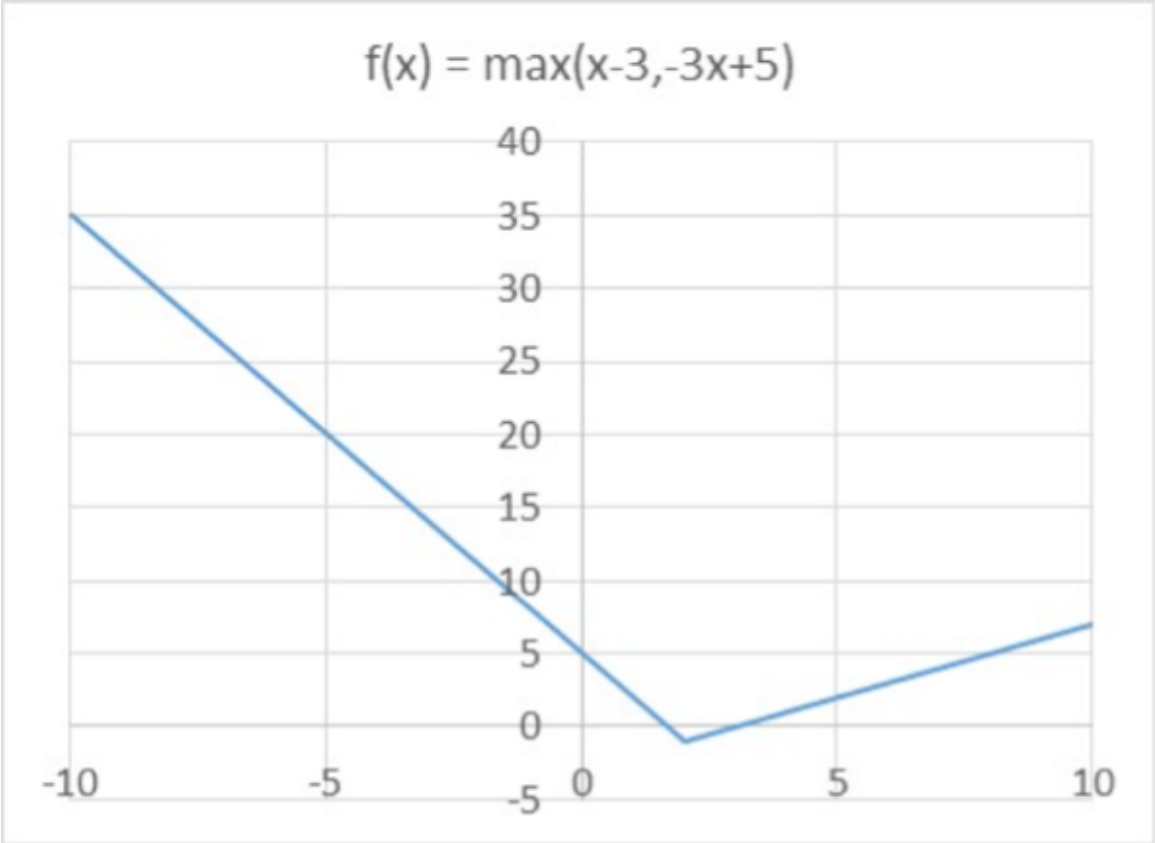
- Not Convex
- Convex ✔

Submit You have used 1 of 1 attempts

✔ Correct (1/1 point)

PART B

1/1 point (graded)



$f(x) = max\{x - 3, -3x + 5\}$

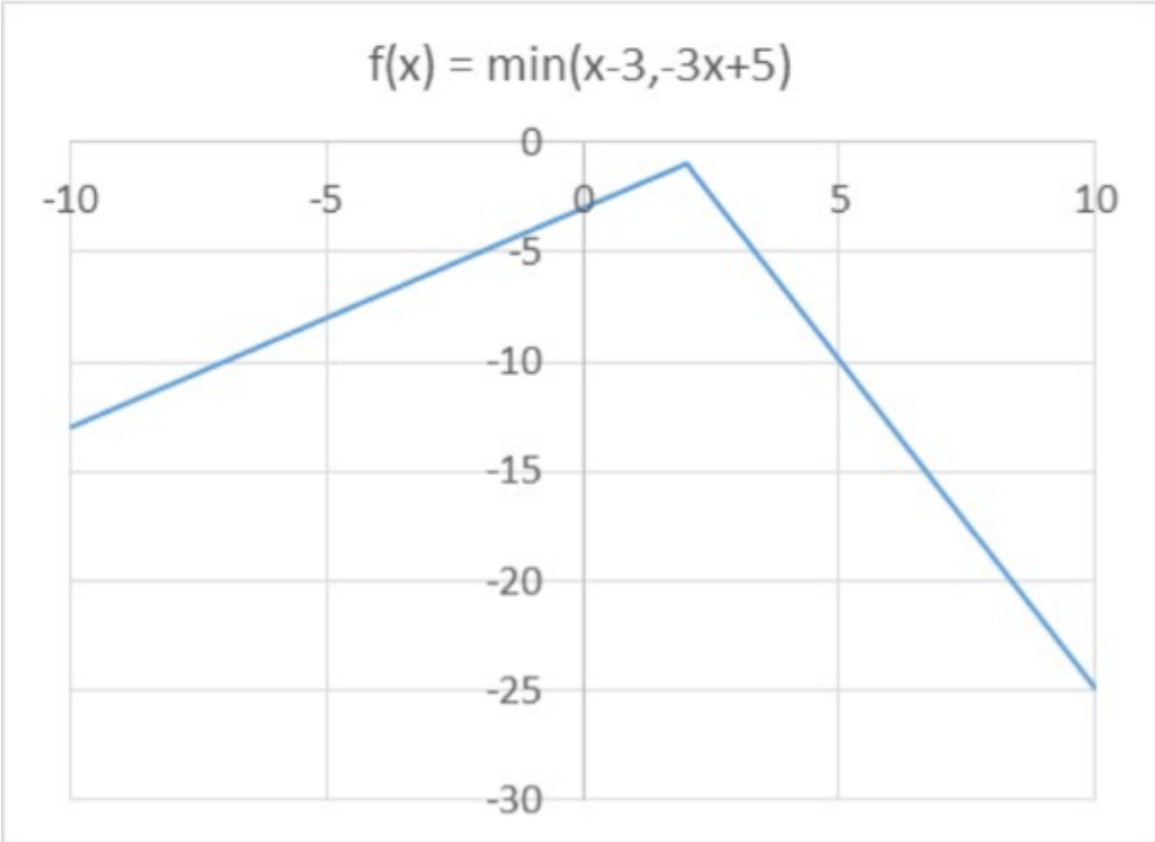
- Not Convex
- Convex ✔

Submit You have used 1 of 1 attempts

✔ Correct (1/1 point)

PART C

1/1 point (graded)



$f(x) = min\{x - 3, -3x + 5\}$

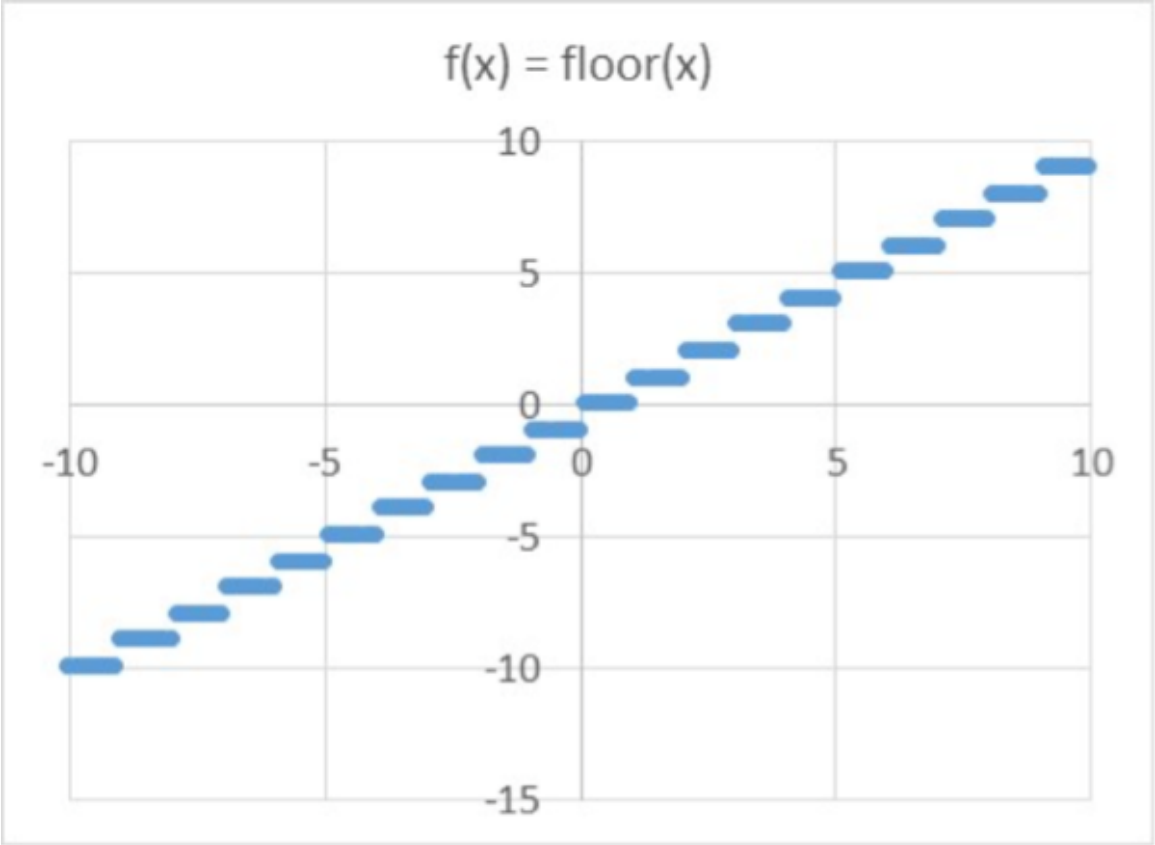
- (•) Not Convex ✔
- ( ) Convex

Submit You have used 1 of 1 attempts

✔ Correct (1/1 point)

PART D

1/1 point (graded)



$f(x) = \lfloor x \rfloor$, which is the largest integer not greater than x

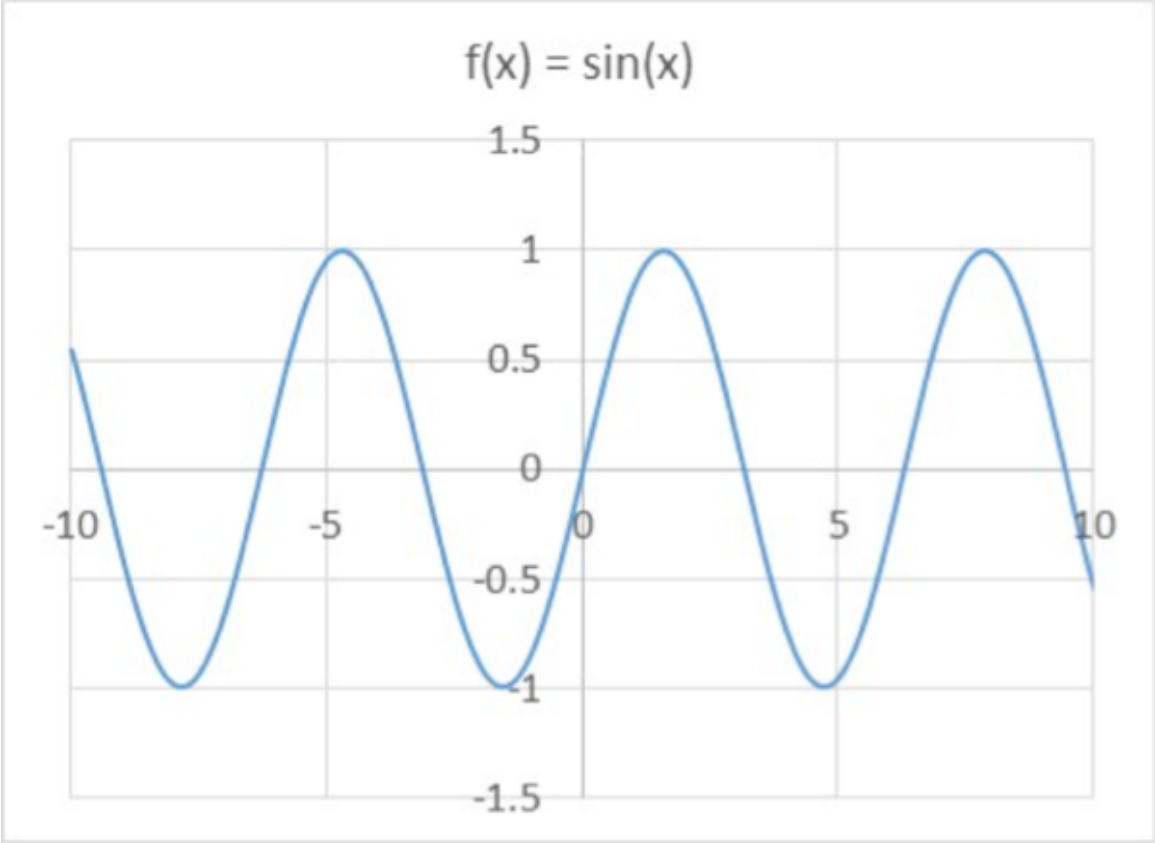
- (•) Not Convex ✔
- ( ) Convex

Submit You have used 1 of 1 attempts

✔ Correct (1/1 point)

PART E

1/1 point (graded)



$f(x) = sin(x)$

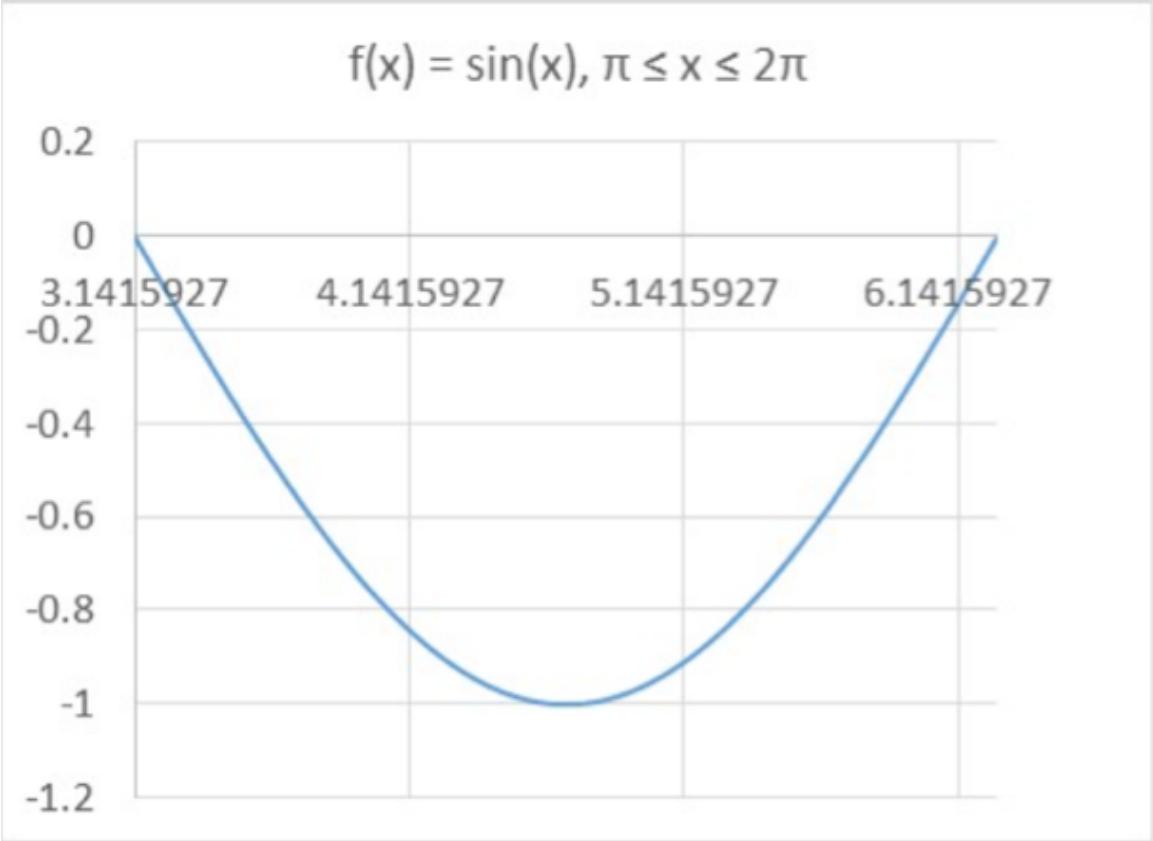
- (◉) Not Convex ✔
- ( ) Convex

Submit You have used 1 of 1 attempts

✔ Correct (1/1 point)

PART F

1/1 point (graded)



$f(x) = sin(x), \pi \leq x \leq 2\pi$

- Not Convex
- Convex ✔

Submit You have used 1 of 1 attempts

✔ Correct (1/1 point)