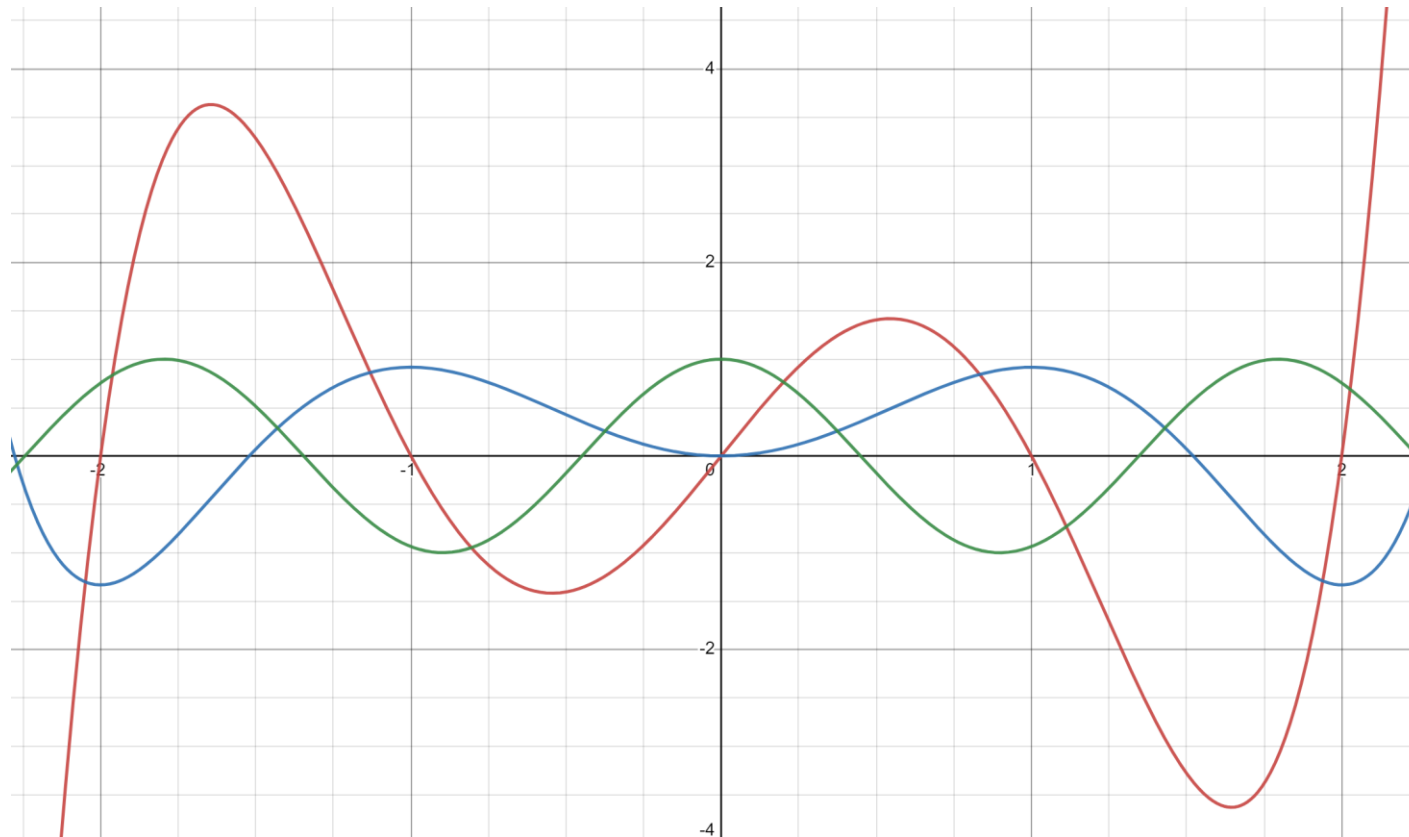


Math 1210 CBE 2 Review

UtahStateUniversity®

Problem 1

One of the three curves below is the derivative of one of the other two. Which one is the derivative of which one?



Solution: Red is the derivative of Blue

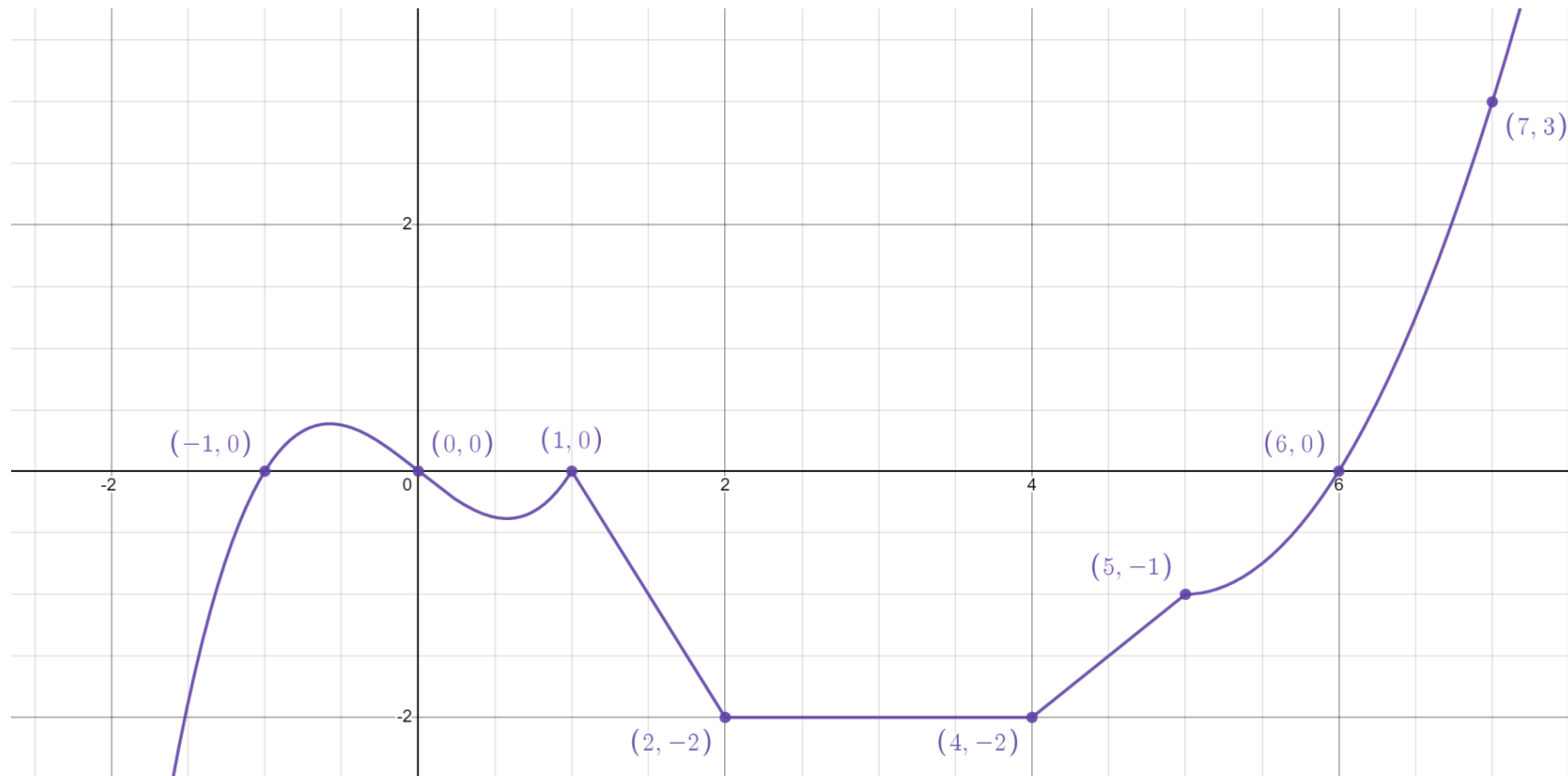
Problem 2

- Find $f'(2)$ for $f(x) = 2x^5 - 3x^4 - 5x^2 + 2x - 6$

Solution: 46

Problem 3

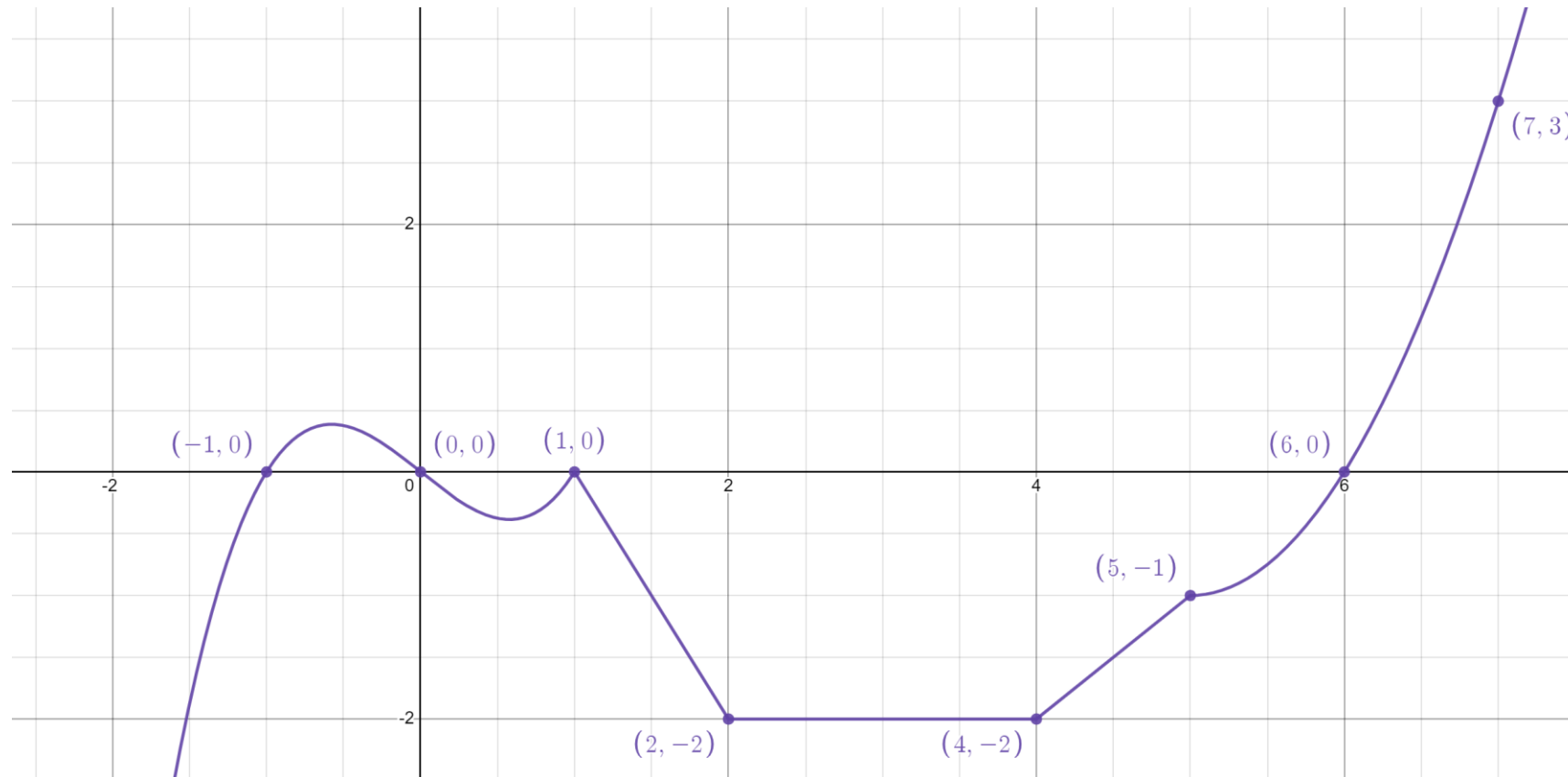
Identify the x -values at which the derivative does not exist.



Solution: $x = \{1, 2, 4, 5\}$

Problem 4

Identify from the graph $f'(4.5)$.



Solution: $f'(4.5) = 1$

Problem 5

- Find $f'(0)$ for $f(x) = x^5 e^x$

Solution: $f'(0) = 0$

Problem 6

Find $f'(1)$ for $f(x) = \frac{3x^4 - 2x^2 + 1}{4x^2 + 3x - 1}$

Find $f'(1)$ for $f(x) = \frac{3x^4 - 2x^2 + 1}{4x^2 + 3x - 1}$

Solution: $f'(1) = \frac{13}{18}$

Problem 7

- Find $f'(4)$ for $f(x) = 3x^2e^x$

Solution: $f'(4) = 72e^4$

Problem 8

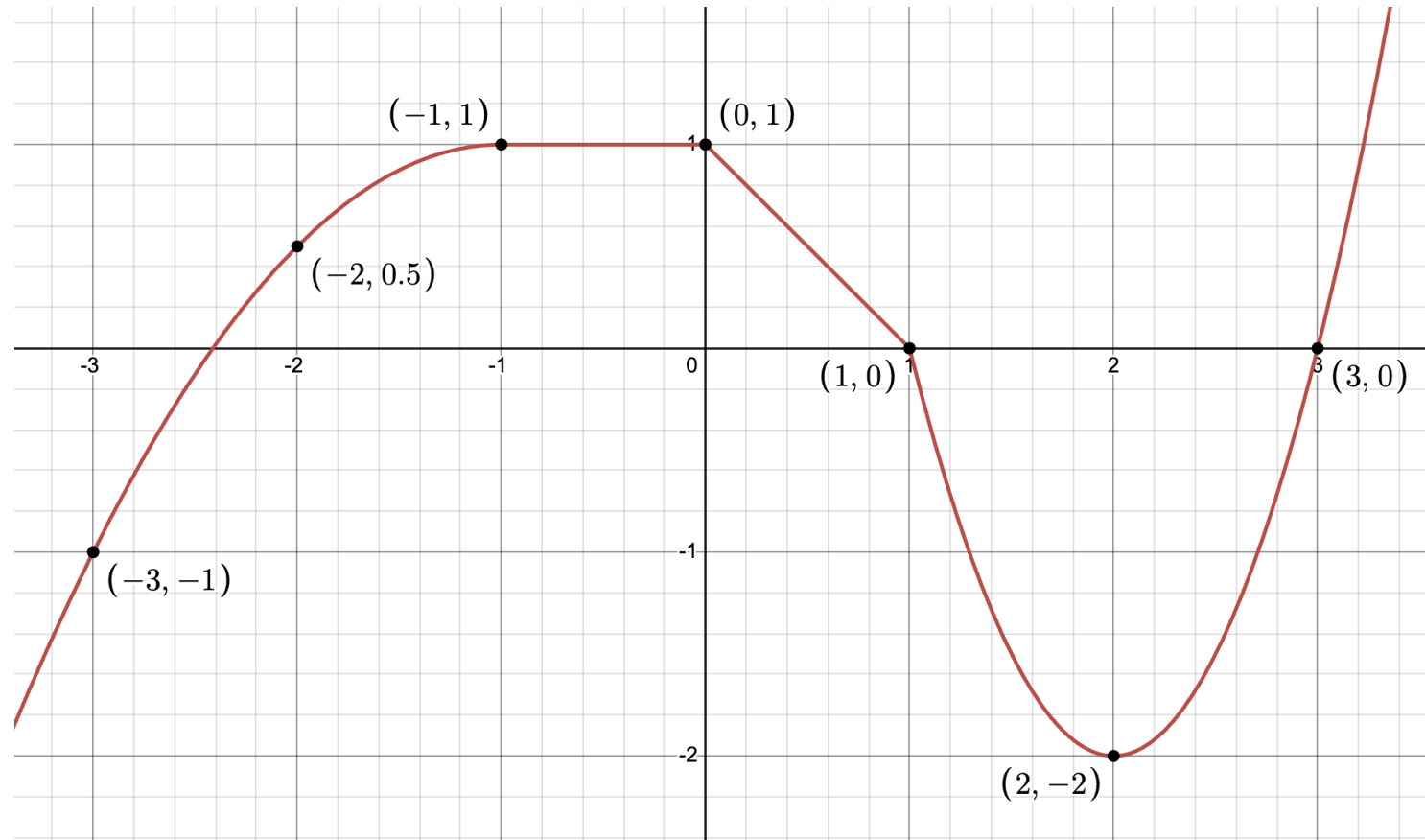
Find $f'(1)$ for $f(x) = \left(\frac{x^2}{2x+1}\right)\left(\frac{e^x}{x}\right)$

Find $f'(1)$ for $f(x) = \left(\frac{x^2}{2x+1}\right)\left(\frac{e^x}{x}\right)$

Solution: $f'(1) = \frac{4e}{9}$

Problem 9

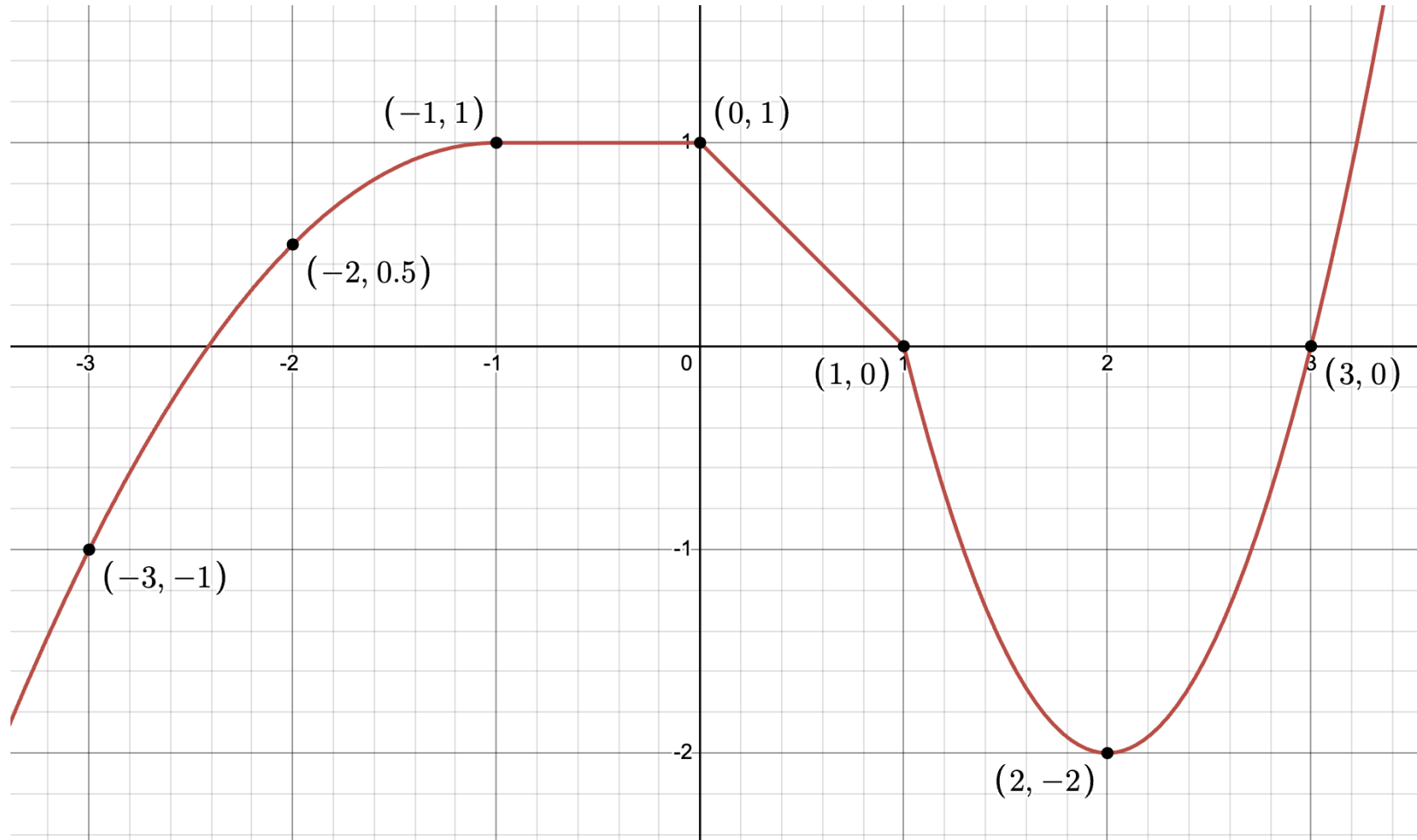
For which values of x is the derivative of the following function 0?



Solution: $-1 < x < 0$ and $x = 2$

Problem 10

List in order from least to greatest for the following function: $f'(-2)$, $f'(0.5)$, $f'(2)$, $f'(3)$



Solution: $f'(0.5)$, $f'(2)$, $f'(-2)$, $f'(3)$

Other Resources

Aggie Math Learning Center

- Visit usu.edu/math/amlc for more videos, resources, tutoring times, and recitation leader office hours

