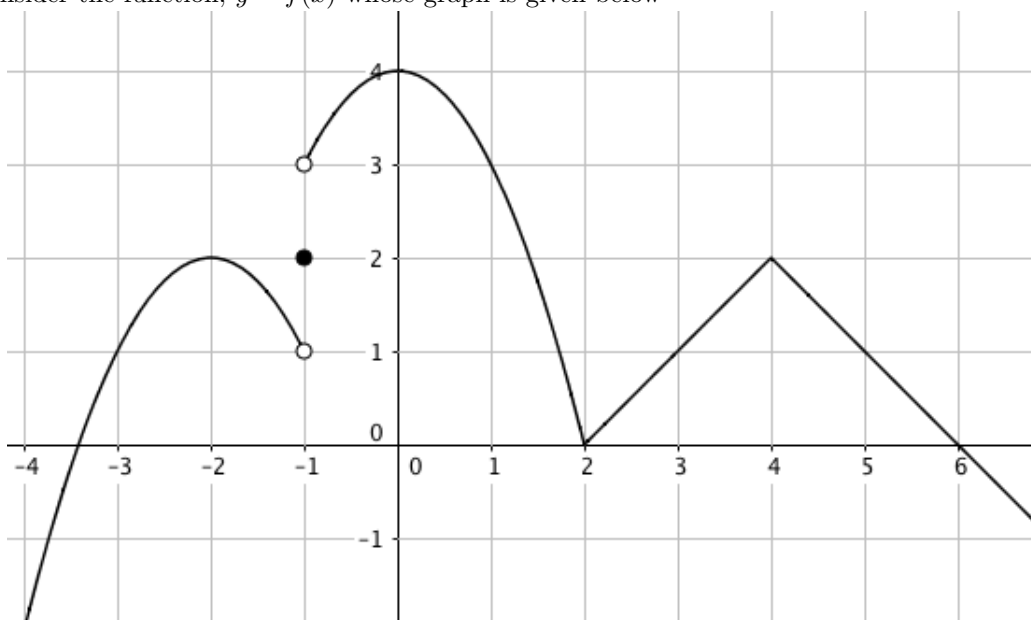


Math 131 - Study Session Problems

1 3.2, 3.3 The First and Second Derivatives and Curve Sketching

Consider the function, $y = f(x)$ whose graph is given below



- Make a sign chart for the first derivative $f'(x)$.
- Make a sign chart for the second derivative $f''(x)$.
- Find the critical point of function.
- Find the intervals on which is f increasing and decreasing?
- On what intervals is f' increasing and decreasing?
- On what intervals is f concave up and concave down?
- Find the local extrema of f from the graph. Which of these can be detected by the first derivative test? Which by the second derivative test?

