6.1 - Pictures of Functions

*Test and Progress Report
*Domain, Range, and Intercepts
*>*"values", Increasing and Decreasing
*Assignment Time and Reading Time

6.1.a Domain, Range, and Intercepts

-Visually from a graph, you should be able to interpret...

\[
(x, f(x))
\]

Domain:
\[-5 \frac{1}{2} \leq x \leq 6\]
\[1 \leq x \leq 4\]

Range:
\[-2 \leq f(x) \leq 2 \frac{1}{2}\]
\[-\frac{1}{2} \leq f(x) \leq 2 \frac{1}{2}\]

Intercepts:
\[
(-5,0) \quad (-3,0) \quad (1 \frac{1}{4},0) \quad \left(4,0\right) \quad \left(0, -2\right)
\]
6.1a Increasing and Decreasing Intervals

- Remember that the value of the function (output, or f(x)) is graphed on the y-axis.

- So when we talk about increasing and decreasing, we are talking about the values

Function is increasing:
\[-\frac{5}{2} \leq x \leq 0, -2 \leq x \leq -1, 1 \leq x \leq 2, 3 \leq x \leq 4, 5 \leq x \leq 6\]

Function is decreasing:
\[-4 \leq x \leq -2\]

Function is constant:
\[-2 \leq x \leq 1\]
Assignment (Due "Monday, October 29")

1) Read all parts of 6.1 and 6.2

2) Chapter 6 Problems Packet
   a) 6.7 / 6.12 / 6.10

*) Looking for:
   neat, complete, organized, and well labeled

3) Progress Report