Coronavirus update

Spring break Mar 9-15

Office hours are on Mar 8 but not Mar 15.

Jacob workshops (cancelled)

Exam Cutoff update

Alibi assignments open for Spring Break!

Increasing, Decreasing, and Constant Behavior of a Function

- All answers are given on open intervals or \( \pm \) coordinates in increasing order.

Determining Relative Minima and Maxima of a Function

- A relative local minimum is the least of a nearby point(s).
- A relative local maximum is the greatest of a nearby point(s).

The \( x \)-coordinate is the location of the \( x \)-value of the relative maximum or minimum.
1. Coronavirus update
2. Spring break Mar 9 - Mar 15
3. Office hours are on Mar 8 but not Mar 15.
4. Jacob workshops required
5. Test blog update
6. ALiEs assignments open for Spring Break!

* Increasing, Decreasing, and Concave Behavior of a Function
  - All answers are given as open intervals or x-coordinates in ascending order

\[
\begin{align*}
&(-3,-4) \quad \text{increasing} \\
&(2,-1) \quad \text{decreasing} \\
&(-1,2) \quad \text{constant}
\end{align*}
\]

* Determine relative minima and maxima of a function
  - A relative/local minimum is the lowest of all nearby points
  - A relative/local maximum is the highest of all nearby points

* The x-coordinate is the location of the relative maximum
  * The y-coordinate is the value of the relative maximum
Max. at (-7, 3) local max. -2 value 3 \( f(-2) = 3 \)

Min. at (0, -2) local min. 0 value -2 \( f(0) = -2 \)

Min. at (5, -3) local min. -3 value -3 \( f(5) = -3 \)

Max. at (3, 3) local max. 3 value 3 \( f(3) = 3 \)

**Domain Restricted Functions**

A function where certain values of \( x \) are not included.

So you only have a piece of the graph.

\[ f(x) = \begin{cases} 7 & \text{if } x < 4 \end{cases} \]