Chapter 6: Properties of a function

The 10 properties of a function are:

1. <u>Domain</u>

The domain are the values of x from left to right of a line/curve.

2. Range

The range are the values of y from bottom to top of a line/curve.

3. Y-intercept (Initial value)

The point at which the line crosses/touches the y-axis.

4. Zeros (x-intercept)

The point at which the line crosses/touches the x-axis.

5. Maximum

The highest y value of the line/curve.

Note: If the answer is ∞ , then write none.

6. Minimum

The lowest y-value of the line/curve.

Note: If the answer is $-\infty$, then write none.

7. Increasing

The interval where the function is increasing is the x-values where the line goes up from left to right.

8. Decreasing

The interval where the function is decreasing is the x-values where the line goes down from left to right.

9. Positive

The interval where the function is positive is the x-values for which the y-values are greater than zero. This means we verify where the line/curve is above the x-axis.

To figure out the interval, hide whatever is below the x axis and read what you see above.

10. Negative

The interval where the function is negative is the x-values for which the y-values are less than zero. This means we verify where the line/curve is below the x-axis.

To figure out the interval, hide whatever is above the x axis and read what you see under.



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