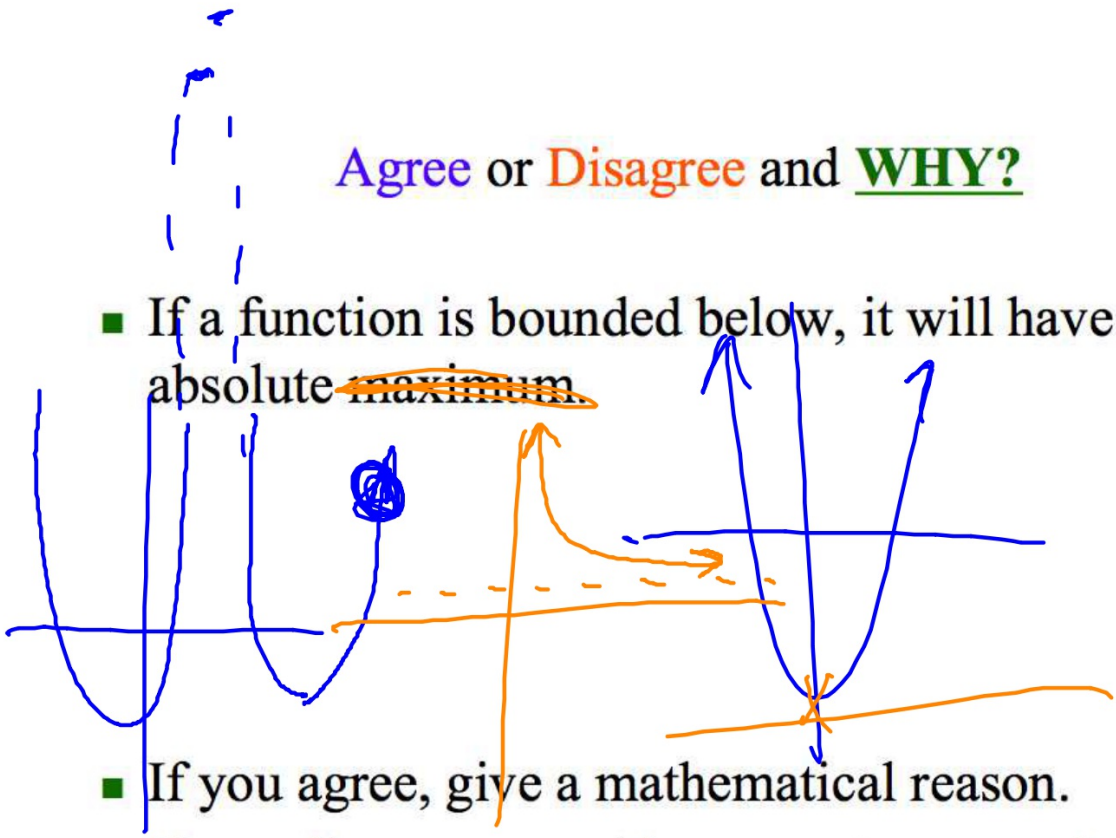
Agree or Disagree and **WHY?**

- All bounded functions have absolute extrema.

- If you agree, give a mathematical reason.
- If you disagree, provide a **counterexample**.

Agree or Disagree and **WHY?**

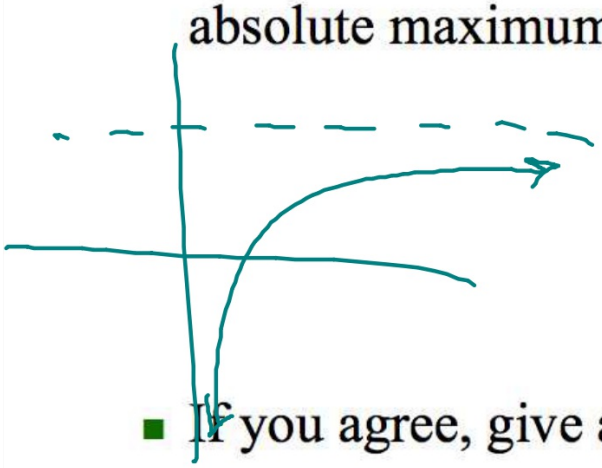
- If a function is bounded below, it will have an absolute ~~maximum~~.

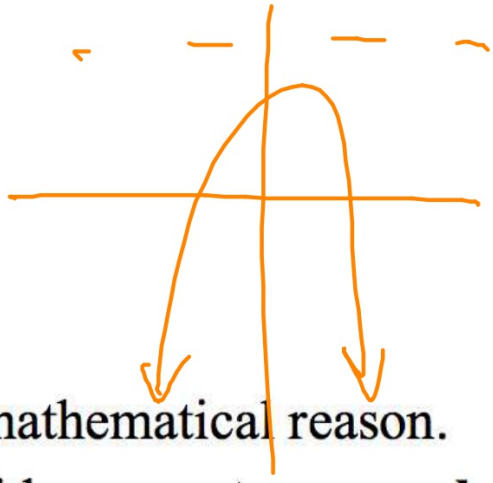


- If you agree, give a mathematical reason.
- If you disagree, provide a **counterexample**.

Agree or Disagree and **WHY?**

- If a function is bounded above, it will have an absolute maximum.

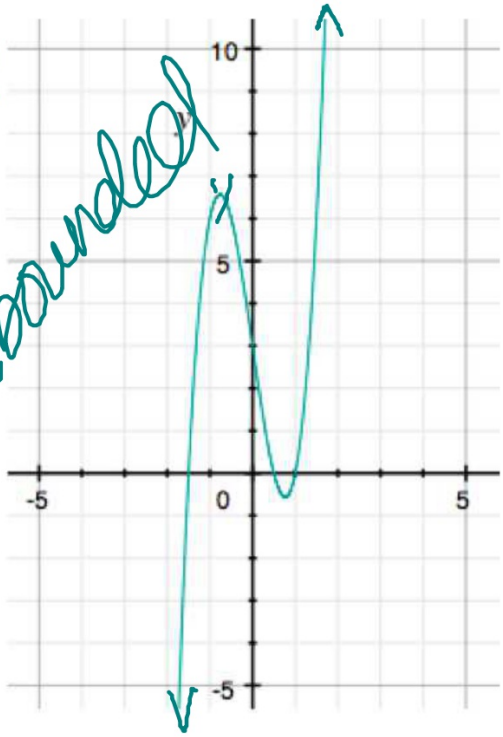




- If you agree, give a mathematical reason.
- If you disagree, provide a **counterexample**.

Agree or Disagree and **WHY?**

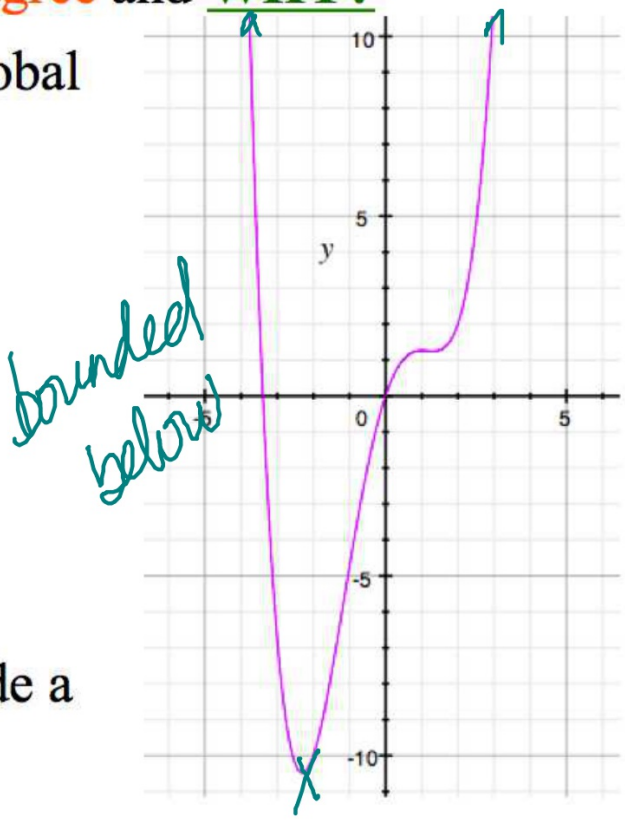
- This function has an ~~absolute~~ local maximum near the y value 6.5.



- If you agree, give a mathematical reason.
- If you disagree, provide a **counterexample**.

Agree or Disagree and **WHY?**

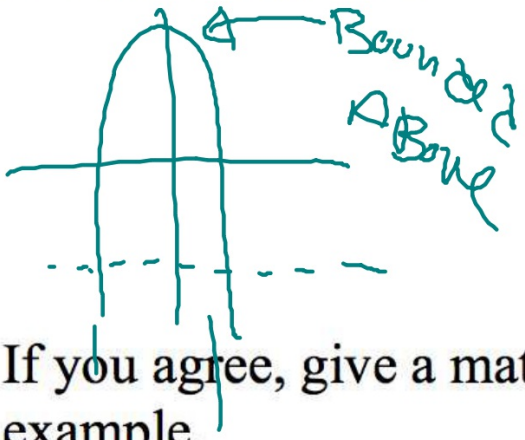
- This function has a global minimum near y=-10.



- If you agree, give a mathematical reason.
- If you disagree, provide a **counterexample**.

Agree or Disagree and **WHY?**

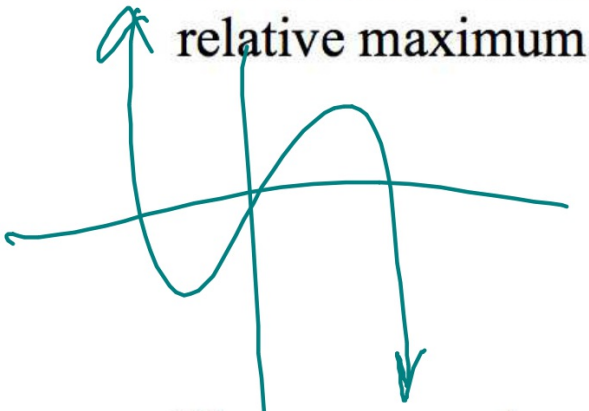
- If a function is bounded above, it can have an absolute minimum.

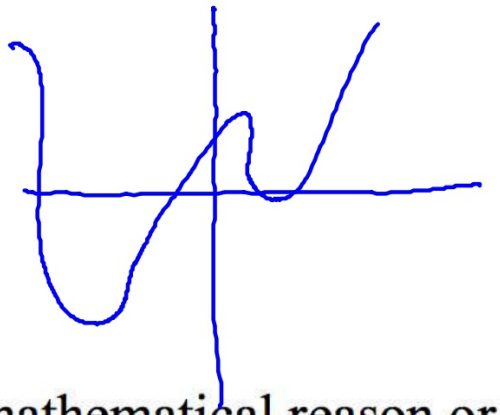


- If you agree, give a mathematical reason or an example.
- If you disagree, provide a **counterexample**.

Agree or Disagree and **WHY?**

- If a function is bounded below, it can have a relative maximum.

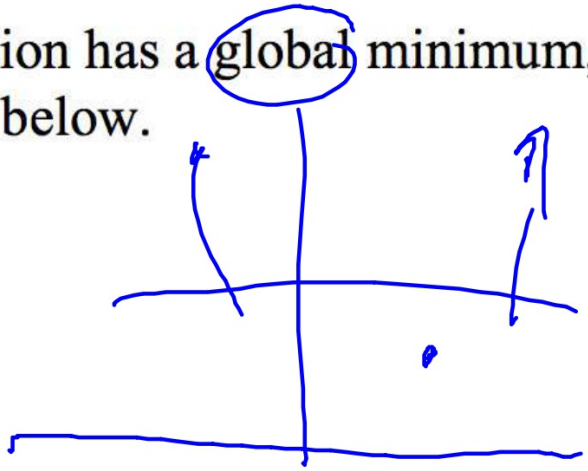




- If you agree, give a mathematical reason or example.
- If you disagree, provide a **counterexample**.

Agree or Disagree and **WHY?**

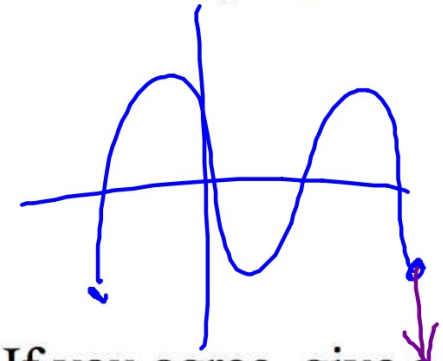
- If a function has a global minimum, it is bounded below.



- If you agree, give a mathematical reason or example.
- If you disagree, provide a **counterexample**.

Agree or Disagree and **WHY?**

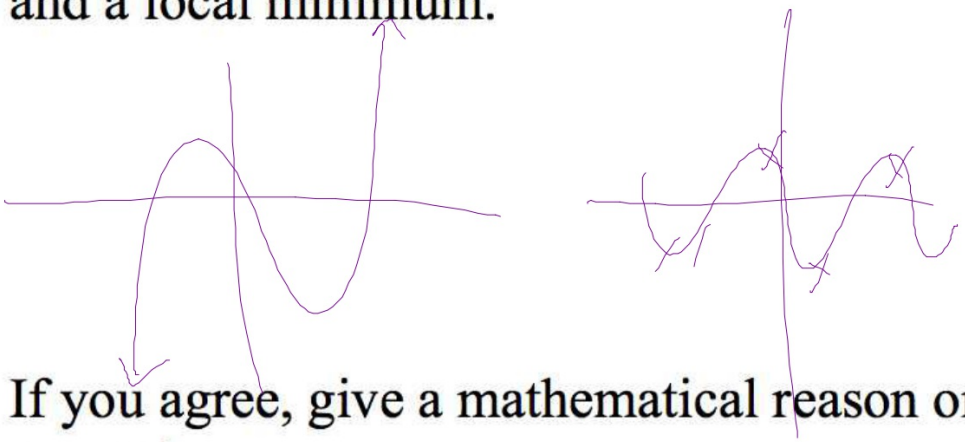
- If a function has an absolute maximum and minimum, then is it bounded above.



- If you agree, give a mathematical reason or example.
- If you disagree, provide a **counterexample**.

Agree or Disagree and **WHY?**

- A function cannot have both a local maximum and a local minimum.



- If you agree, give a mathematical reason or example.
- If you disagree, provide a **counterexample**.

Agree or Disagree and **WHY?**

- A function cannot have both an absolute maximum and an absolute minimum.

- If you agree, give a mathematical reason or example.
- If you disagree, provide a **counterexample**.