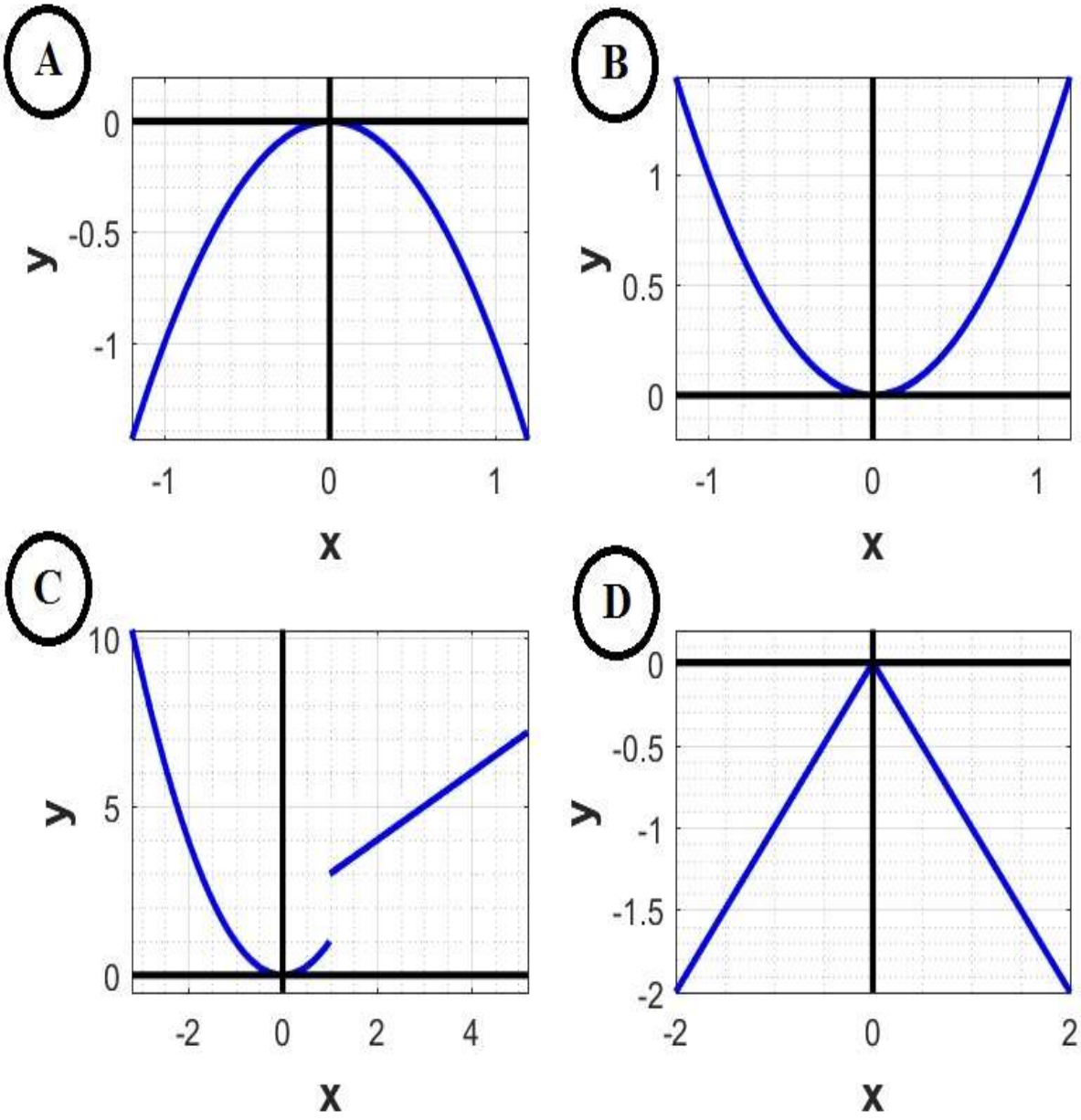
QQ8

Convexity

0 points possible (ungraded)

Choose the convex function.



Choose one graph.

- Graph A
- Graph B ✔
- Graph C
- Graph D

Explanation

The parabola in the upper right is open upwards. Since it would "hold water", it is convex.

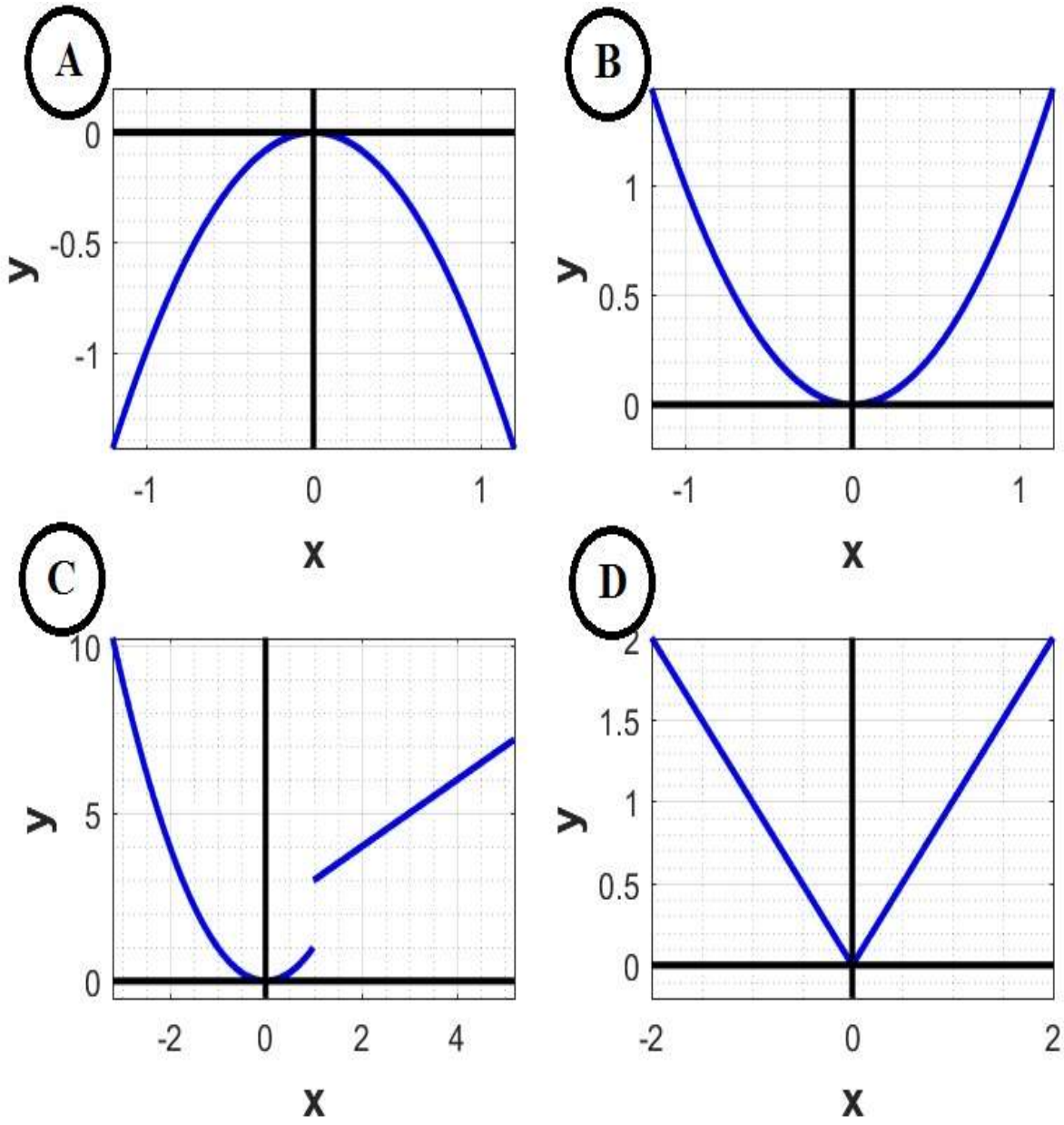
Submit You have used 1 of 3 attempts

Answers are displayed within the problem

Concavity

0 points possible (ungraded)

Choose the concave function.



Choose one graph.

- (•) Graph A ✔
- ( ) Graph B
- ( ) Graph C
- ( ) Graph D

Explanation

The parabola in the upper left is open downwards. It is concave.

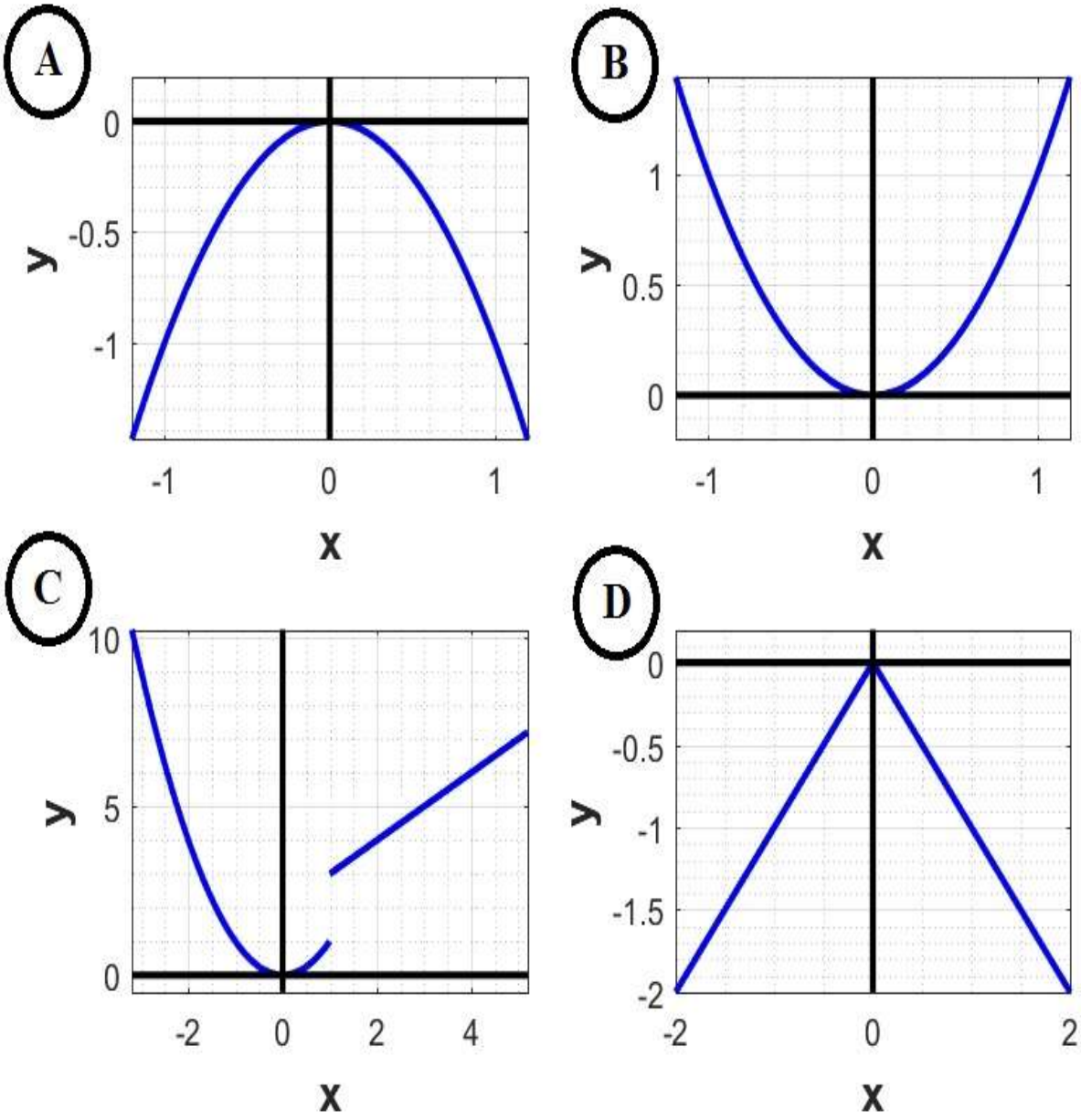
Submit You have used 1 of 3 attempts

Answers are displayed within the problem

Non-Continuous Function

0 points possible (ungraded)

Choose the function that is ***not*** continuous.



Choose one graph.

- Graph A
- Graph B
- Graph C ✔
- Graph D

Explanation
Since there is a break in the bottom left graph, it is not continuous. While the bottom right graph is piecewise, it is still continuous.

Submit You have used 1 of 3 attempts

Answers are displayed within the problem

Linearity

0 points possible (ungraded)
In simple terms, a single variable equation is linear when the variable appears only to the power of 1.

Choose the equations that are ***not*** linear.

- [x] y=x^2 ✔
- [ ] y=3
- [ ] y=4*x+12-3*x-23
- [x] y=ln(x) ✔
- [x] y=e^x ✔

✔

Tip: If the "Check" button does not work, try reloading the page.

Explanation
y=x^2 is a parabola. It is not linear.
y=3 is a flat line. It is linear.
y=4*x+12-3*x-23 can be simplified down to y=x-11. It is linear.
y=Ln(x) is a graph of the natural log of x. It is not linear.
y=e^x is an exponential graph. It is not linear.

You have used 1 of 3 attempts

Submit

Answers are displayed within the problem

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Topic: Week 1 / Lesson 2, Quick Question 8

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y=3 is a constant function
This question started with this concept: a single variable equation is linear when the variable appears onl... 6

? Can convex/ concave functions be non continuous
Based on the definitions, it seems that convex/ concave functions can either be continuous or non contin... 4

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