Math 1A: Discussion 8/31/2018

Jeffrey Kuan

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Problem Set 1

Question 1

Graph each of the following functions, describing sequentially what the transformations involved are.

- $f(x) = 2(x - 2)^2 + 1$

- $g(x) = -x^2 - 4x - 2$ (Hint: Complete the square)

- $h(x) = |x^3 + 1|$

- $u(x) = -4\sin(2x)$

- $v(x) = 2^{x+2}$

- $w(x) = |2^x - 2|$

- $y(x) = -2\sqrt{x + 3}$

Problem Set 2

Question 2

Consider the following transformations:

- (A) Take the absolute value.

- (B) Shift up by 1.

- (C) Reflect across the x axis.

- (D) Multiply by 2.

We will start with $f(x) = \sin(x)$. Do the following transformations **in the order described**. Write down an equation for the resulting function and sketch a graph of the final function. Which cases give the same function in the end?

- Apply (B) then (D).

- Apply (D) then (A).

- Apply (B), (D), then (A).

- Apply (D), (C), then (B).

- Apply (D), (B), then (A).

- Apply (B), (C), then (A).

- Apply (C), (D), (B), then (A).

Problem Set 3

No more questions! Have a great (long) weekend!