Remote Lesson 6.4

Practice: Describe the transformations from the parent that have taken place.

1. Horizontal shift R1, Vertical Stretch 2, Vertical Shift up 4
2. Horizontal shrink , Vertical stretch 3, reflection over x-axis
3. Horizontal shrink , Horizontal shift R3 (factor out the 2), Vertical Stretch 3

Building a polynomial function using transformations

Ex. Given . Write the polynomial equation for the given transformations

1. Vertically stretch *f* by a factor of 4

So this would be 4f(x)

Therefore, 4)

Our polynomial is

1. Horizontally shrink *f* by a factor of

*Remember horizontal changes are “countercultural”*

*This would be* f(3x).

1. Reflect *f* across the x-axis

This would be -f(x)

Now you try

Given , find the resulting equation for the given changes

1. Vertical translation up 2
2. Vertical stretch 4; reflect over x-axis
3. Horizontal shrink of
4. Horizontal shift right 2 (think-this would be f(x-2))

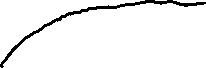
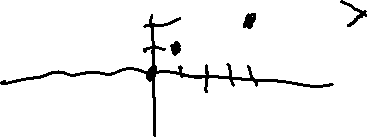
Make sure you can affirm the provided answers!

You also need to be able to graph scale changes and translations of toolkit functions.

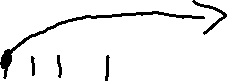
(with anchor points!)

Example

Parent



Answer



Note! This is not going to be asked of you for logistic functions at this point, as this is not a real known in your toolbox yet.

HW pp 139-140 9-29 odd, 39-49 odd