Jacob Carroll   November 27, 2019
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Lesson 2- Discovery Learning Activity
<u>-Make sure all boxes are unclicked before beginning**.-**</u>

a*f(x)

1. Click the red box that says, "Show a*f(x)=".
2. Set the red slider to 1.
3. Record your observations in Table 1.
4. Set the red slider to -1.
5. Record your observations in Table 1.
6. Set the red slider to 2.
7. Record your observations in Table 1.
8. Set the red slider to 0.5.
9. Record your observations in Table 1.
10. Unclick the red box.

f(bx)

1. Click the purple box that says, "Show f(bx)=".
2. Set the purple slider to 1.
3. Record your observations in Table 2.
4. Set the purple slider to -1.
5. Record your observations in Table 2.
6. Set the purple slider to 2.
7. Record your observations in Table 2.
8. Set the purple slider to 0.5.
9. Record your observations in Table 2.
10. Unclick the purple box.

f(x-c)

1. Click the orange box that says, "Show f(x-c)=".
2. Set the orange slider to 0.
3. Record your observations in Table 3.
4. Set the orange slider to 1.
5. Record your observations in Table 3.
6. Set the orange slider to -1.
7. Record your observations in Table 3.
8. Unclick the orange box.

f(x)+d

1. Click the blue box that says, "Show f(x)+d=".
2. Set the blue slider to 0.
3. Record your observations in Table 4.
4. Set the blue slider to 1.
5. Record your observations in Table 4.
6. Set the blue slider to -1.
7. Record your observations in Table 4.
8. Unclick the blue box.

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Table 1

	f(x)= ?	a*f(x)= ?
1		
-1		
2		
0.5		

Table 2

	f(x)= ?	f(bx)= ?
1		
-1		
2		
0.5		

Table 3

	f(x)= ?	f(x-c)= ?
0		
1		
-1		

Table 4

	f(x)= ?	f(x)+d= ?
0		
1		
-1		

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Guided Questions

1. What did you notice with f(x) and the red graph, a*f(x)?

2. What did you notice with f(x) and the purple graph, f(bx)?

3. Were there any similarities or differences with a*f(x) and f(bx)?

4. What did you notice with f(x) and the orange graph, f(x-c)?

5. What did you notice with f(x) and the blue graph, f(x)+d?

6. Were there any similarities or differences with f(x-c) and f(x)+d?