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### Artifact 2: Reflection

The technology used for this artifact had huge impact on my understanding of the power function ( $y=ax^b+c$ ). Before the exploration, I knew this graph had a bunch of dependent features, however the TiNspire dynamic software helped me to learn the different features of this function. TiNspire has several features that, in my opinion, work really well with exploring functions and the properties of those functions. I am a visual learner. In order for me to truly understand a concept, I have to be able to visualize this concept.

Using TiNspire, I was able to use the slider feature, the multi-function-on-a-single-display feature, and the 3D feature to investigate the power function. Having these visual representations of the function deepened my understanding of the properties of the function. I was also able to take what I learned of this function, and can apply it to other functions. The slider function allowed me to see the different graphs of a function with the change of a given variable. Therefore opening the option to compare and contrast the graphs with the single click of a button. Seeing multiple functions on the same display simultaneously allowed me to compare and contrast different functions without having to click on anything. Then the 3D display allowed me to move the graph any which way, to show that the graphs are more than just lines on a plane, but they are planes in a coordinate region.

I learned more in this exploration than I did back in grade school when I was supposed to learn this the first time. Hopefully, my students will have the access needed to allow them to use this technology too. I believe my students will be able to see the same, and possibly more,

observations I made on this exploration. Plus, I think the students will be able to remember it and have the deeper understanding that I now have of these functions. It is my hope that my students will also be able to apply these properties to other functions in mathematics.