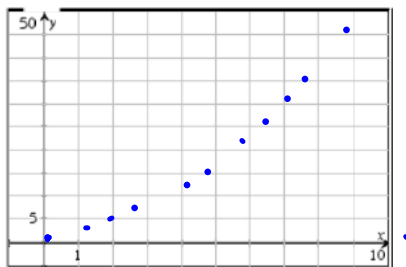


The Exponential Growth of Skittles

Start with one skittle. Place it in a cup, shake it, and then empty it on the desk. If the letter S is showing, place it back in the cup. If there is no S, add another candy and place both in the cup. Empty the cup again. For every candy not displaying a S, add another one and place it in the cup. Repeat for up to 10 trials or until you run out of candy. Record the data in the table below.

Trial	0	1	2	3	4	5	6	7	8	9	10
Candies	1										

Sketch a graph of the data collected in your growth experiment.

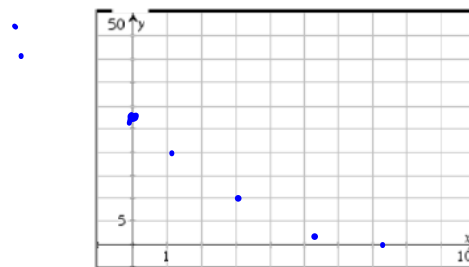




The Exponential Decay of Skittles

Start with all of your candies. Count them and record this number as trial 0. Place them in the cup. Empty them out. If the S is showing, place them back in the cup. If there is no S showing, place them to the side. You may eat these candies. Empty the remaining candies and repeat the above step until you have less than 5 skittles but greater than 0 skittles.

Trial	0	1	2	3	4	5	6	7	8	9	10
Candies											

Sketch a graph of the data collected in your decay experiment.



Definition	General Equation
<p>- a function where the variable is in the exponent. example : $y = 2^x$</p>	<p>$y = a \cdot b^{x-h} + k$ b is base base determines parent function</p>
<p>Exponential Growth base > 1 Growth always gets bigger Bounded growth - Reflected</p>  	<p>Exponential Decay <i>NO negative bases</i> $0 < \text{base} < 1$ decay always decreases Bounded decay</p> 