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Toolkit #7:

Exponentials

Date:

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Period: A1 A2 A3 B1 B2 B3

Multiple representations of Exponentials

Situation:

Susan got two rabbits from the animal shelter last summer. A month later, those rabbits have babies and then she had 6 rabbits. After a few months she realized that her number of rabbits triples every month. At this rate, how many rabbits will she have a year after she first got the rabbits?

Equation:

 $y = ab^x$

a = initial value b = multiplier

Define variables:

Let x represent time since ______(in months).

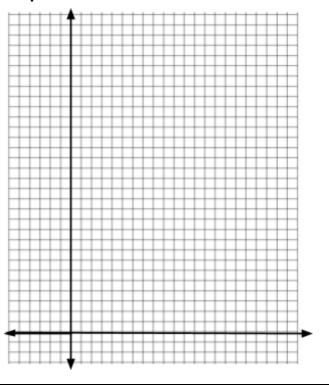
Let y represent ______.

Equation:

Table:

Time (months)	# of rabbits

Graph:



Multiple representations of Exponentials

Situation:

In 2019 Ms. Ramer bought a used car: a 2007 Toyota Prius for \$5,000.

- The value of the car will depreciate each year by approximately ______.
- In 2007, the car had a value of _____.
- If Ms. Ramer keeps her car until 2030, it will be worth about ______.
- The graph of this situation has an asymptote. That means that, theoretically, ______

Equation:

 $y = ab^x$

a = initial value

b = multiplier

Define variables:

Equation:

Table:

Time since Purchase (years)	Value of car (dollars)
0	5000
1	4600
2	4232
3	
4	3582
5	

Graph:

