KILROY ACADEMY

A FUZZY FAIRY TALE

ANSWER KEY

1.   (a.) b = 2

   (b.) b is the exponential growth factor. Since each teddy bear will double, the number is always multiplied by 2.
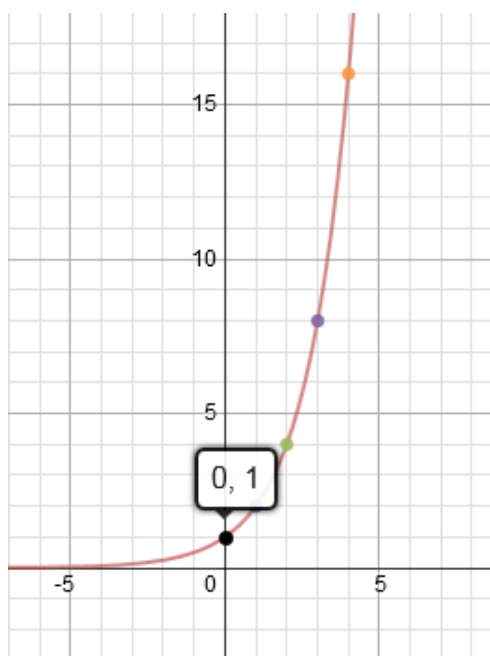
   (c.) $y = 1(2)^x$ where x is the number of days
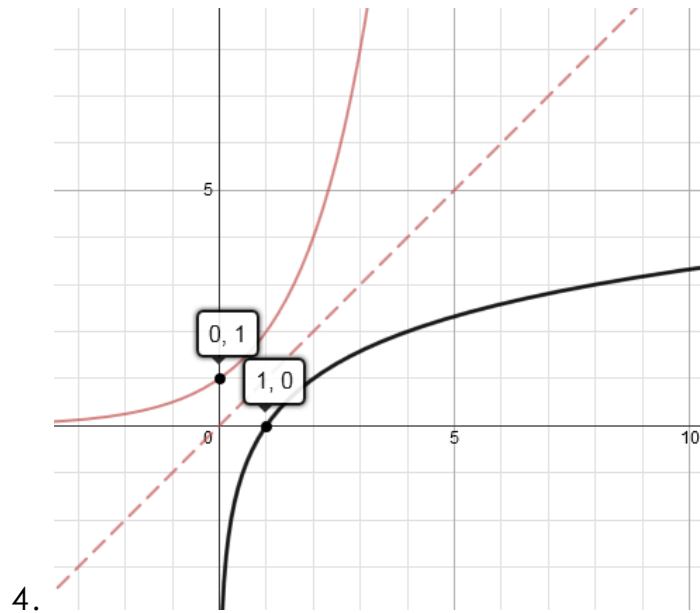
   (d.) a is the initial number of bears and also the y-intercept for the function. It is the value, or number of bears, when x = 0 or before they start doubling.

2.

x (*days*)	0	1	2	3	4	5
y (*teddy bears*)	1	2	4	8	16	32

3.

4.
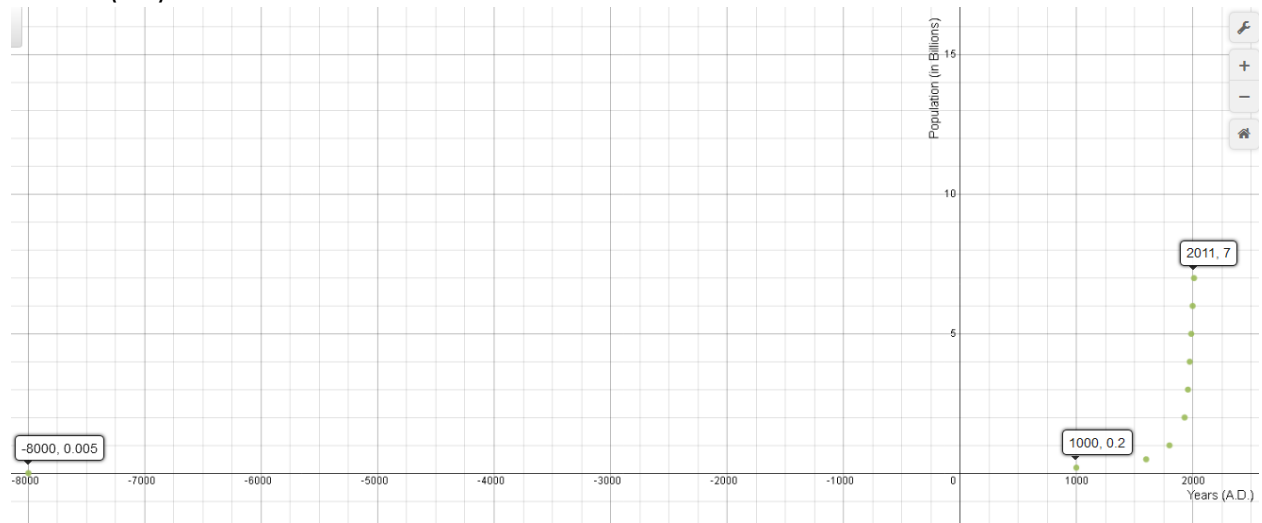
5. $y = \log_2 x$

6.   (a.) 2 more days

       (b.) 5 days

7.   2 more days, or 30 days.

8.   (a.)

     (b.) Answers will vary.

ACKNOWLEDGEMENTS