


4.3 Exponential Functions

Study 4.3 # 1, 7, 9, 23, 24, 25,
27, 55, 57, 59ab, 60

Answer questions on following web page.

 http://www.battaly.com/collegealgebra/geogebra/exponential_function/

Class Notes: Prof. G. Battaly, Westchester Community College, NY

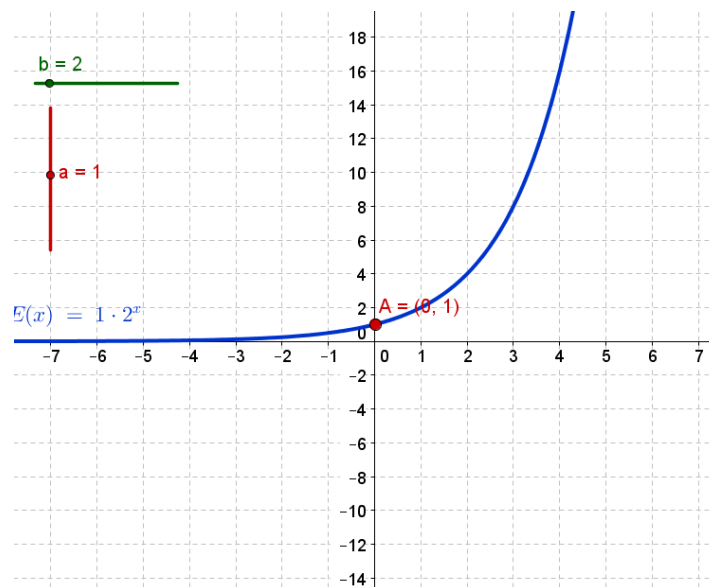
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4.3 Exponential Functions

$$f(x) = a \cdot b^x$$



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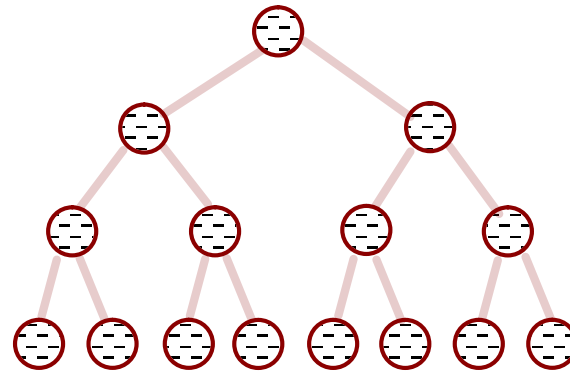
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$$f(x) = a b^x \quad a \neq 0, b > 0, b \neq 1$$

Consider bacteria: one cell divides to two



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$$f(x) = a b^x \quad a \neq 0, b > 0, b \neq 1$$

Consider bacteria:
one cell divides to two

	Generation	No of cells
	0	1
	1	2
	2	4
	3	8
	4	?
	5	?

Can you guess these?

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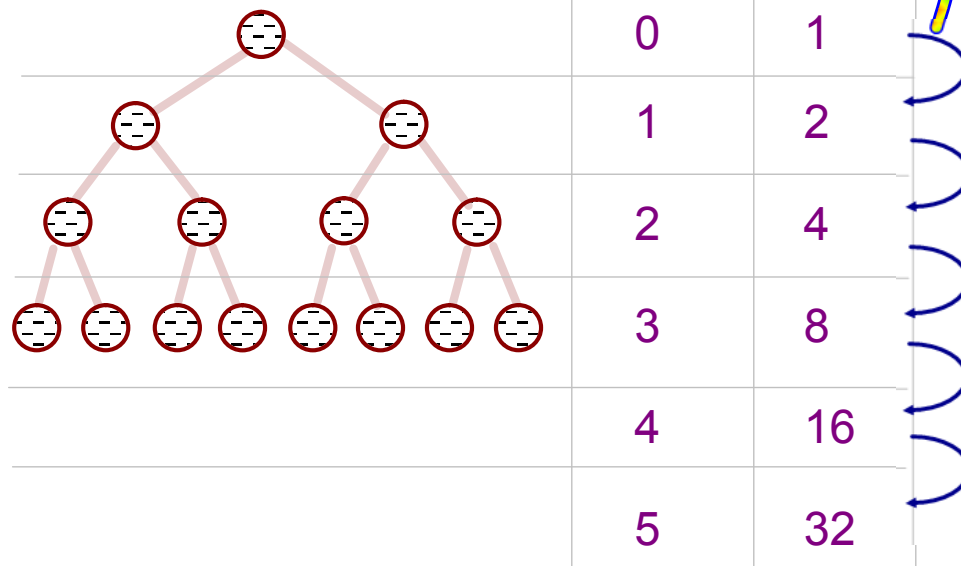
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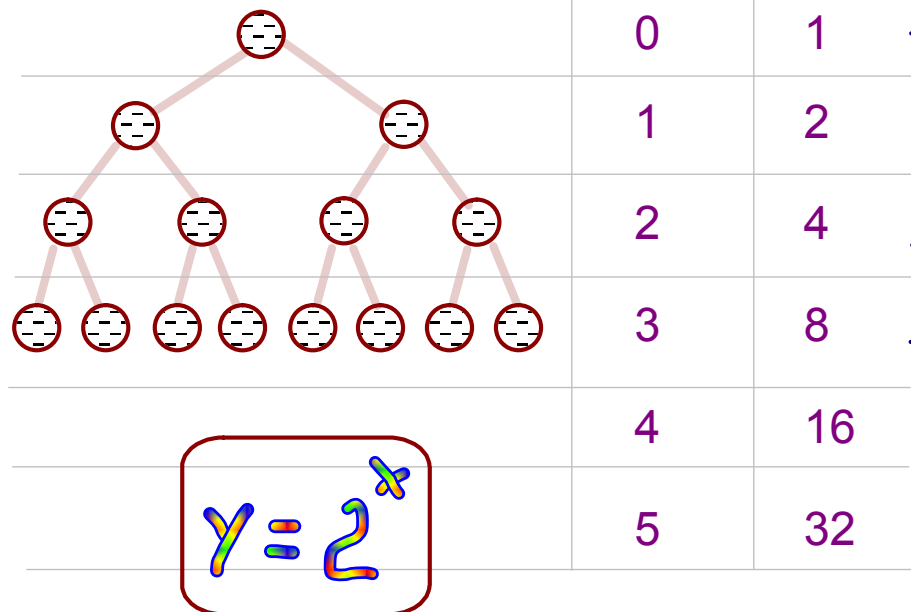
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$$f(x) = a b^x \quad a \neq 0, b > 0, b \neq 1$$

Consider bacteria:
one cell divides to two



Multiply
by 2

$$y = 2^x$$

$$f(x) = a b^x \text{ where } a = 1, b = 2$$

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