

Algebra 1

Drug Medications

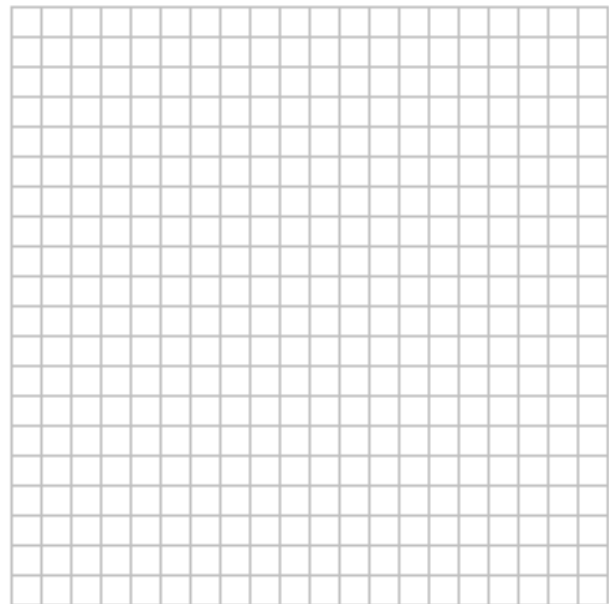
Name _____

Hour _____

The amount of a certain drug, in milligrams, in a patient's bloodstream can be modeled by a function. Below is a table showing the amount of the drug in a patient's bloodstream over time.

Time (hours after drug was taken)	Drug (milligrams)
2	1.8
4.	0.648
6.	0.23328
8.	0.0839808
10.	0.030233088

- Sketch a graph of this data.
- What kind of function is most reasonable for this data? Explain your reasoning.
- Find the function that models this data.



- d. Give the domain and range of this function. Explain your reasoning.
- e. Give the domain and range of this function in terms of this situation. Explain your reasoning.
- f. How much of the drug will be in the patient's bloodstream after 5 hours?
- g. How much of the drug will be in the patient's bloodstream after 18 hours?
- h. How many hours will it take for there to be less than 0.01 milligrams of the drug left in the patient's bloodstream?
- i. What was the dosage of the drug? Explain your reasoning.