

2. The table shows the average sale price,  $p$ , of a house in New York City, for various years,  $t$ , since 1960.

Years since 1960, $t$	0	1	2	3	4	5	6
Average sale price (in thousands of dollars), $p$	45	36	29	24	21	20	21

- a. What type of function most appropriately represents this set of data? Explain your reasoning.
- b. In what year is the price at the lowest? Explain how you know.
- c. Write a function to represent the data. Show your work.
- d. Can this function ever be equal to zero? Explain why or why not.
- e. Mr. Samuels bought his house in New York City in 1970. If the trend continued, how much was he likely to have paid? Explain and provide mathematical evidence to support your answer.