## 5.6

## **Practice B**

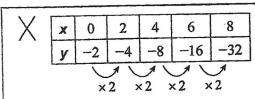
In Exercises 1 and 2, determine the type of function represented by the table. Explain your reasoning.

2  $\frac{1}{2}$ 

2.	x	0	1	2	3
	у	8	12	18	27

In Exercises 3–8, write an exponential function  $y = ab^x$  whose graph passes through the given points.

- 3. (1, 10), (2, 20)
- **4.** (1, 18), (3, 162) **5.** (2, 36), (3, 72)
- **6.** (3, 375), (4, 1875)
- **7.** (2, 3.6), (5, 777.6) **8.** (2, 8), (5, 512)
- 9. Describe and correct the error in determining the type of function represented by the data.



The outputs have a common ratio of 2, but the outputs are negative, so the data does not represent a recognizable function.

In Exercises 10 and 11, determine whether the data show an exponential relationship. Then write a function that models the data.

10. 5 X 8 16 64 32

11.	x	0	10	20	30	40
	У	0	15	30	45	60

12. Use a graphing calculator to find an exponential model for the data in the table.

-	X	2	5	6	8	9
	У	7.65	25.819	38.728	87.138	130.71