

## 6.2 Practice B

In Exercises 1–3, identify the initial amount  $a$  and the rate of growth  $r$  (as a percent) of the exponential function. Evaluate the function when  $t = 5$ . Round your answer to the nearest tenth.

1.  $f(t) = 220(1.015)^t$       2.  $p(t) = 5.5(1.5)^t$       3.  $h(t) = 2.5^t$

In Exercises 4 and 5, write a function that represents the situation.

4. A college's tuition of \$135 per credit hour increases by 5% each year.  
5. A bee population of 3000 increases by 40% every year.

In Exercises 6–8, identify the initial amount  $a$  and the rate of decay  $r$  (as a percent) of the exponential function. Evaluate the function when  $t = 3$ . Round your answer to the nearest tenth.

6.  $f(t) = 1420(0.895)^t$       7.  $y = \left(\frac{3}{5}\right)^t$       8.  $y = 9.2\left(\frac{1}{3}\right)^t$

In Exercises 9 and 10, write a function that represents the situation.

9. A \$25,000 car decreases by 16.7% each year.  
10. A company's annual revenue of \$487,000 decreases by 4.2% each year.

In Exercises 11 and 12, determine whether the table represents an *exponential growth function*, an *exponential decay function*, or *neither*. Explain.

11. 

<b>x</b>	2	4	6	8
<b>y</b>	5	10	15	20

12. 

<b>x</b>	1	5	9	13
<b>y</b>	81	54	36	24

13. The table shows the total numbers of shares of an initial public offering purchased  $t$  days after it opens on the stock market.

<b>x</b>	1	2	3	4
<b>y</b>	6250	2500	1000	400

- a. Determine whether the table represents an exponential growth function, an exponential decay function, or neither.  
b. How many shares were purchased after the stock had been opened for 6 days?