

Station 6

Identify the initial amount a and the growth factor b in each exponential function.

1. $f(x) = 3 \cdot 5^x$

Identify the initial amount a and the growth factor b in each exponential function.

3. $g(t) = 3.5^t$

Find the balance in each account after the given period.

5. \$8000 principal earning 5% compounded annually, after 6 yr

Find the balance in each account after the given period.

6. \$2000 principal earning 5.4% compounded annually, after 4 yr

Find the balance in each account after the given period.

7. \$500 principal earning 4% compounded quarterly, after 10 yr

Find the balance in each account after the given period.

8. \$6500 principal earning 2.8% compounded monthly, after 2 yr

Identify the initial amount a and the decay factor b in each exponential function.

9. $y = 8 \cdot 0.8^x$

State whether the equation represents *exponential growth*, *exponential decay*, or *neither*.

11. $y = 0.82 \cdot 3^x$

State whether the equation represents *exponential growth*, *exponential decay*, or *neither*.

13. $f(x) = 18 \cdot x^2$

Identify the initial amount a and the growth factor b in each exponential function.

2. $y = 250 \cdot 1.065^x$

Identify the initial amount a and the growth factor b in each exponential function.

4. $h(x) = 5 \cdot 1.02^x$

Identify the initial amount a and the decay factor b in each exponential function.

10. $f(x) = 12 \cdot 0.1^x$

State whether the equation represents *exponential growth*, *exponential decay*, or *neither*.

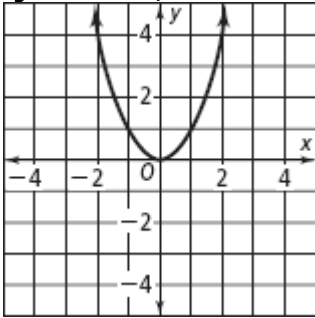
12. $f(x) = 5 \cdot 0.3^x$

State whether the equation represents *exponential growth*, *exponential decay*, or *neither*.

14. $y = 0.9^x$

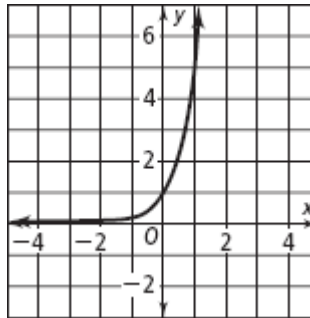
State whether each graph shows an *exponential growth function*, an *exponential decay function*, or *neither*.

20.



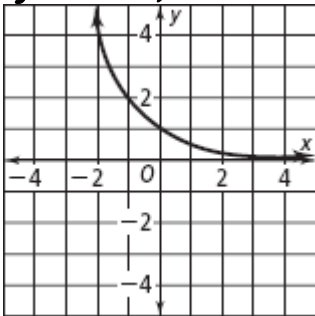
State whether each graph shows an *exponential growth function*, an *exponential decay function*, or *neither*.

21.



State whether each graph shows an *exponential growth function*, an *exponential decay function*, or *neither*.

22.



State whether each graph shows an *exponential growth function*, an *exponential decay function*, or *neither*.

23.

