

Practice and Apply

Identify each function as linear, quadratic, or exponential.

10. $g(x) = 10x + 3$

11. $k(x) = (77 - x)x$

12. $f(x) = 12(2.5)^x$

13. $k(x) = 0.5^x - 3.5$

14. $g(x) = (2200)^{3.5x}$

15. $h(x) = 0.5x^2 + 7.5$

Tell whether each function represents exponential growth or decay.

16. $y(x) = 12(2.5)^x$

17. $k(x) = 500(1.5)^x$

18. $y(t) = 45\left(\frac{1}{4}\right)^t$

19. $d(x) = 0.125\left(\frac{1}{2}\right)^x$

20. $g(x) = 0.25(0.8)^x$

21. $s(k) = 0.5(0.5)^k$

22. $m(x) = 222(0.9)^x$

23. $f(k) = 722^{-k}$

24. $g(x) = 0.5(787)^{-x}$

Match each function with its graph.

25. $y = 2^x$

26. $y = 2(3)^x$

27. $y = 2\left(\frac{1}{3}\right)^x$

28. $y = \left(\frac{1}{2}\right)^x$

