Name:_____ Date:_____

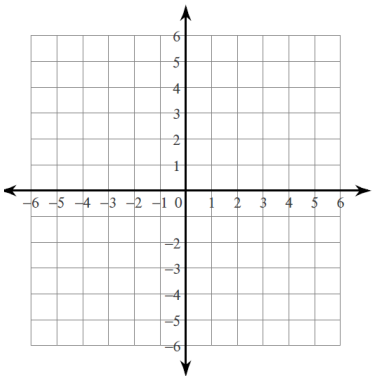
Graphing and analyzing exponential graphs

Graph each of the following

1. Graph the following

$y = -\frac{1}{2}\left(\frac{1}{4}\right)^{x} + 6$

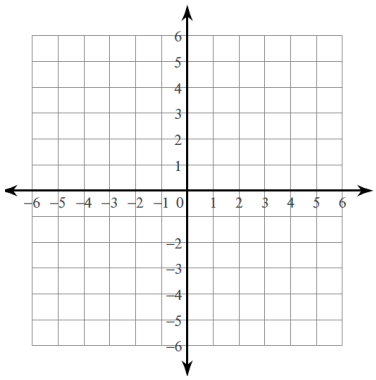
x	y
-2	
-1	
0	
1	
2	



2. Graph the following

$y = 2\left(\frac{1}{2}\right)^{x-1} + 2$

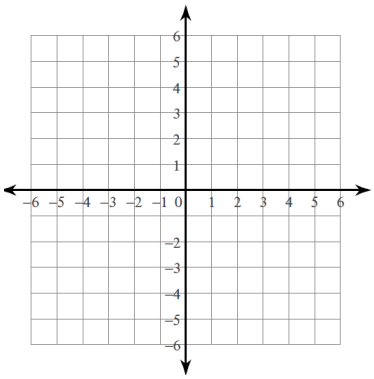
x	y
0	
1	
2	
3	
4	



3. Graph the following

$y = (3)^{x+1} - 5$

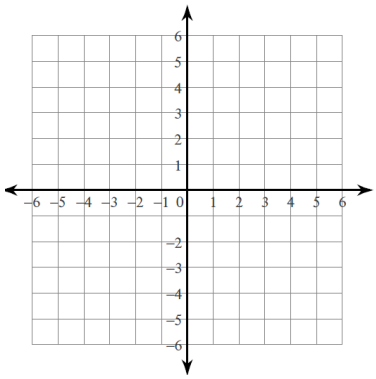
x	y
-3	
-2	
-1	
0	
1	



4. Graph the following

$y = -\left(\frac{3}{2}\right)^{x+3}$

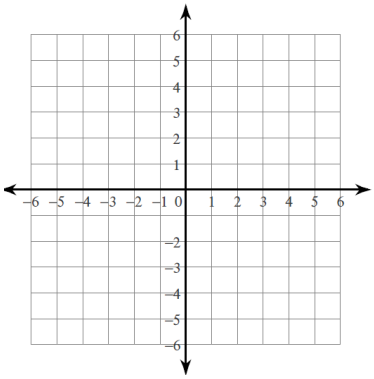
x	y
-3	
-2	
-1	
0	
1	



5. Graph the following

$y = -3\left(\frac{1}{3}\right)^{x+3} + 3$

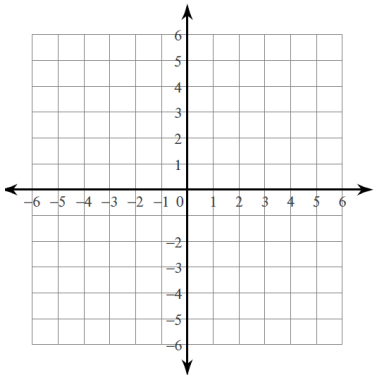
x	y
-4	
-3	
-2	
-1	
0	



6. Graph the following

$y = 3(2)^{x} - 4$

x	y
-2	
-1	
0	
1	
2	



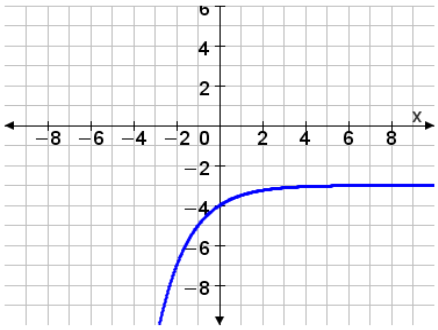
7. Which of the following could be the equation for the graph shown?

A. $f(x)=-\left(\frac{1}{2}\right)^{x-3}$

B. $f(x)=\left(\frac{1}{2}\right)^{x}-3$

C. $f(x)=-(2)^{x}-3$

D. $f(x)=-\left(\frac{1}{2}\right)^{x}-3$



8. Domain:

9. Range:

10. End Behavior x→ -∞, y→
x→ ∞, y→

11. Asymptote:

12. y- intercept:

13. Zeros:

14. Growth/Decay?

15. Increasing/Decreasing?

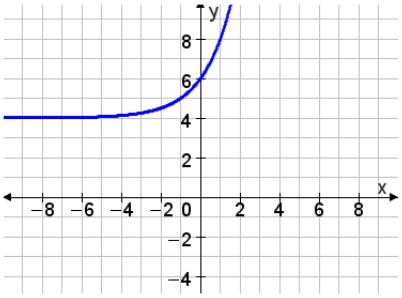
16. Which of the following could be the equation for the graph ?

A. $f(x)=\frac{3}{4}(2)^{x}-4$

B. $f(x)=2\left(\frac{1}{2}\right)^{x}+4$

C. $f(x)=2(2)^{x}+4$

D. $f(x)=2(2)^{x+4}$



17. Domain:

18. Range:

19. End Behavior x→ -∞, y→
x→ ∞, y→

20. Asymptote:

21. y- intercept:

22. Zeros:

23. Growth/Decay?

24. Increasing/Decreasing?

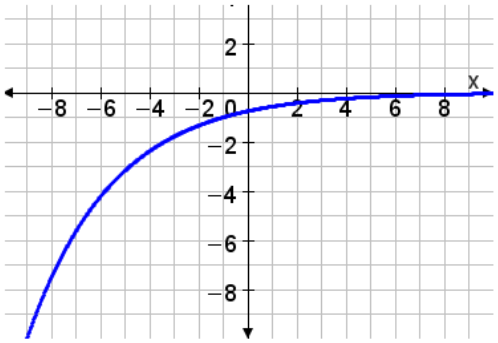
25. Which of the following could be the equation for the graph shown?

A. $f(x)=-\left(\frac{3}{4}\right)^{x+1}$

B. $f(x)=-\left(\frac{3}{4}\right)^{x}+1$

C. $f(x)=-\left(\frac{4}{3}\right)^{x}$

D. $f(x)=\left(\frac{3}{4}\right)^{x+1}$



26. Domain:

27. Range:

28. End Behavior x→ -∞, y→
x→ ∞, y→

29. Asymptote:

30. y- intercept:

31. Zeros:

32. Growth/Decay?

33. Increasing/Decreasing?

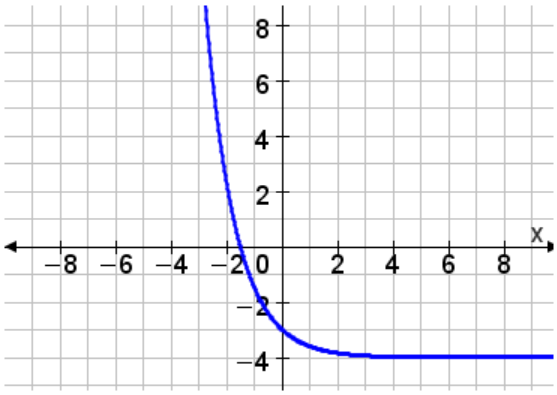
34. Which of the following could be the equation for the graph shown?

A. $f(x)=\left(\frac{5}{2}\right)^{x}-4$

B. $f(x)=\left(\frac{2}{5}\right)^{x}-4$

C. $f(x)=-\left(\frac{2}{5}\right)^{x}-4$

D. $f(x)=-\left(\frac{5}{2}\right)^{x}-4$



35. Domain:

36. Range:

37. End Behavior x→ -∞, y→
x→ ∞, y→

38. Asymptote:

39. y- intercept:

40. Zeros:

41. Growth/Decay?

42. Increasing/Decreasing?