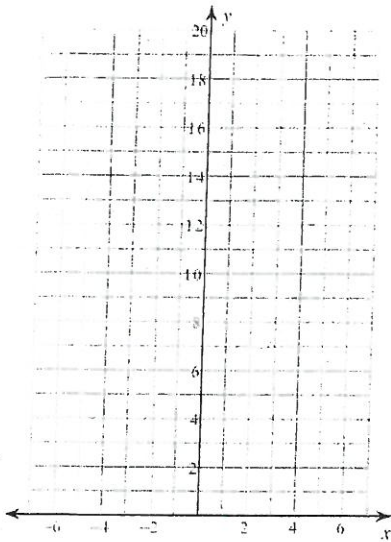
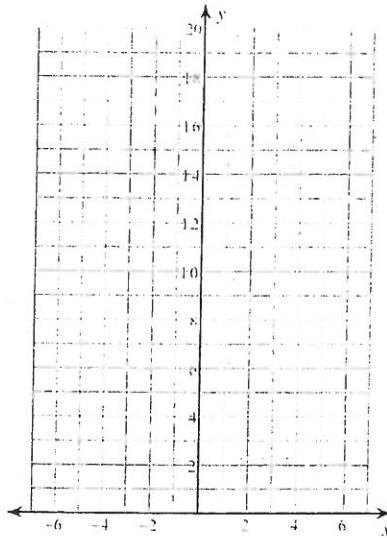


#1-3, Graph each function.

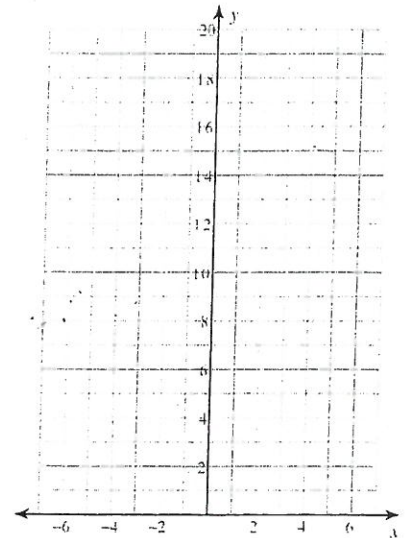
1. $y = 4(2)^x$



2. $y = 6 \cdot \left(\frac{1}{2}\right)^x$



3. $f(x) = 10 \cdot \left(\frac{1}{4}\right)^x$



#4-6, Using a colored pencil graph each of the following function *on the graph above it*. For example, #4 should be graphed on same graph as #1.

4. $y = 4(2)^x + 5$

5. $f(x) = 6 \cdot \left(\frac{1}{2}\right)^x - 2$

6. $f(x) = 10 \cdot \left(\frac{1}{4}\right)^x + 3$

7. What is the asymptote of the graph in #1.

8. What is the asymptote in the graph of #4

9. Prior to the start of a recession, the store *Edloe & Co.*'s monthly revenue hovered around \$800,000. A store's **revenue** is the total dollar amount that customers spend in the store on goods and services. *Use data below.*

a. What is the original revenue?

b. What's the growth factor?

c. Write an exponential function that describes this data.

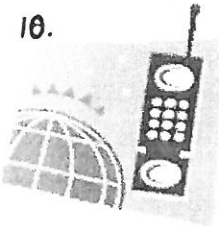
d. What is the revenue the 6th month after the start of the recession.

e. Assume that the domain of this exponential function is 16 months. In other words, assume that the recession will last for 16 months. At what point will revenues surpass 3 million dollars?

Edloe and Co. Revenues

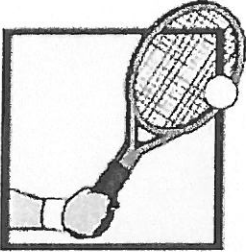
- Prior to recession: \$800,000
- 1 month after recession: \$880,000
- 2 months after recession: \$968,000
- 3 months after recession: \$1,064,800
- 4 months after recession: \$1,171,280

10.



In 1985, there were 285 cell phone subscribers in the small town of Centerville. The number of subscribers increased by 75% per year after 1985. How many cell phone subscribers were in Centerville in 1994? (Don't consider a fractional part of a person.)

11.



Each year the local country club sponsors a tennis tournament. Play starts with 128 participants. During each round, half of the players are eliminated. How many players remain after 5 rounds?

#12 -16, Use the information to write an equation for each function. *Be careful*

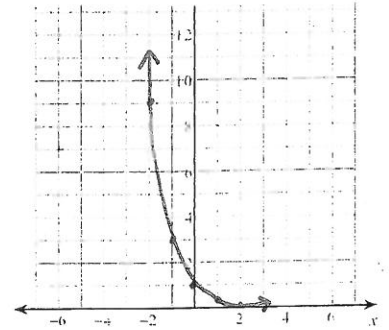
12.

x	f(x)
0	2
1	6
2	18
3	54
4	162

13.

x	f(x)
-1	0.75
1	12
2	48
3	192
4	768

14.



15. (0,3), (1, 5), (2,7), (3,9)

16. (1, 15), (2, 45), (4, 405)