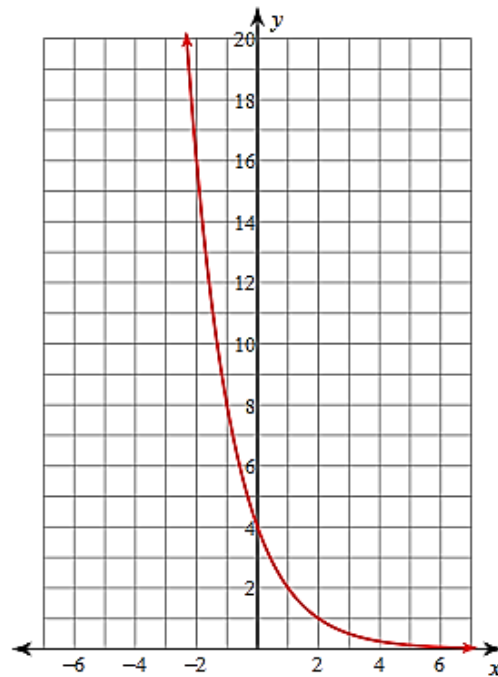
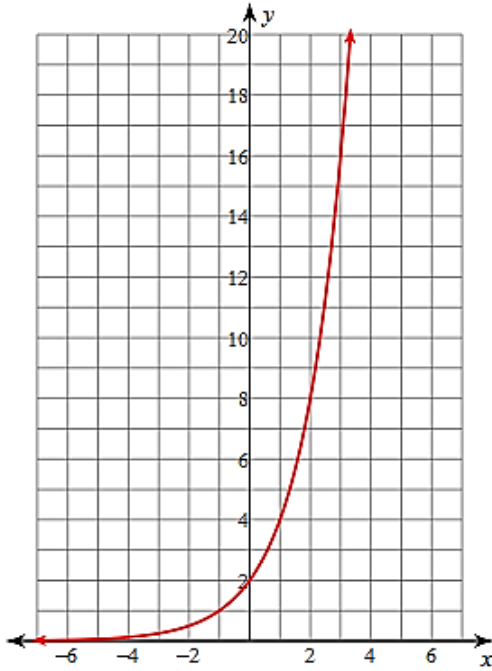


Practice Assignment

Directions: Find the average rate of change for the given intervals

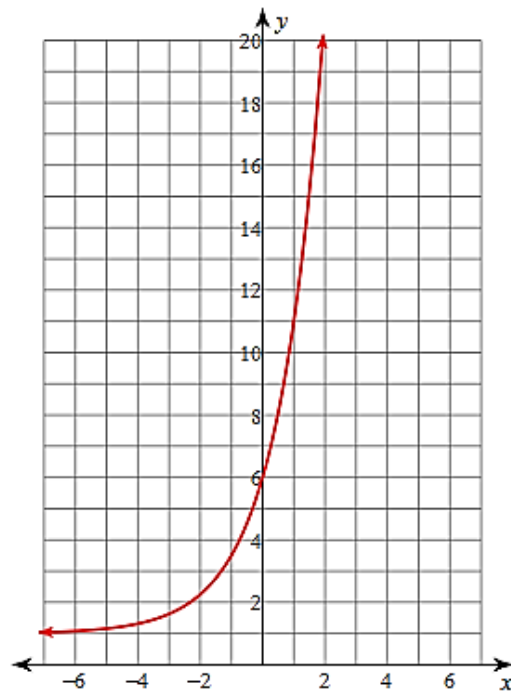
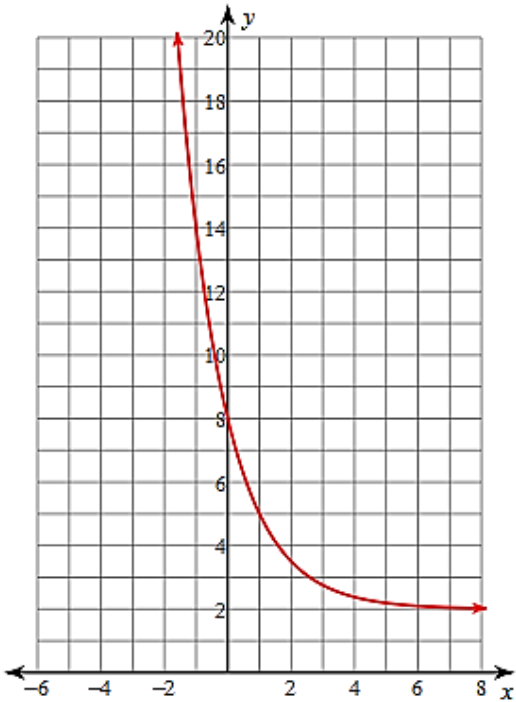
1.  $0 \leq x \leq 3$

2.  $-1 \leq x \leq 2$



3.  $-1 \leq x \leq 1$

4.  $0 \leq x \leq 1$



5. A type of bacteria doubles every 36 hours. A petri dish starts out with 12 of these bacteria. Use the table below to calculate the rate of change for the interval  $[2, 5]$ .

Days ( $x$ )	Amount of bacteria ( $f(x)$ )
0	12
1	19
2	30
3	48
4	76
5	121
6	192

6. Find the average rate of change for the following functions on the given interval.

a.  $f(x) = \frac{3}{4}(2)^x$ ,  $2 \leq x \leq 5$

b.  $f(x) = 2(5)^x$ ,  $1 \leq x \leq 3$

7. Use the table below to answer the following questions:

$x$	0	1	2	3	4
$y$	3	6	■	■	■

a. Create three  $y$ -values that complete the table so the function would be linear.

b. Create three  $y$ -values that complete the table so the function would be exponential.

c. Create your own table of values for a function that is linear and has constant first differences of  $-3$ .

d. Create your own table of values for a function that is exponential and has constant ratio of  $3$ .