Name _____ Date _____

Go for the Curve!
Comparing Linear and Exponential Functions

Vocabulary

Describe each type of account as simple interest or compound interest based on the scenario given. Explain your reasoning.

1. Andrew deposits $300 into an account that earns 2% interest each year. After the first year, Andrew has $306 in the account. After the second year, Andrew has $312 in the account, and after the third year, Andrew has $318 in the account.

2. Marilyn deposits $600 in an account that earns 1.5% interest each year. After the first year, Marilyn has $609 in the account. After the second year, Marilyn has $618.14 in the account, and after the third year, Marilyn has $627.41 in the account.

Problem Set

Write a function to represent each problem situation.

1. Nami deposits $500 into a simple interest account. The interest rate for the account is 3%. Write a function that represents the balance in the account as a function of time t.

   $P(t) = P_0 + (P_0 \cdot r)t$

   $P(t) = 500 + (500 \cdot 0.03)t$

   $P(t) = 500 + 15t$

2. Carmen deposits $1000 into a simple interest account. The interest rate for the account is 4%. Write a function that represents the balance in the account as a function of time t.

3. Emilio deposits $250 into a simple interest account. The interest rate for the account is 2.5%. Write a function that represents the balance in the account as a function of time *t*.

4. Vance deposits $1500 into a simple interest account. The interest rate for the account is 5.5%. Write a function that represents the balance in the account as a function of time *t*.

5. Perry deposits $175 into a simple interest account. The interest rate for the account is 4.25%. Write a function that represents the balance in the account as a function of time *t*.

6. Julian deposits $5000 into a simple interest account. The interest rate for the account is 2.75%. Write a function that represents the balance in the account as a function of time *t*.

5

Sherwin deposits $500 into a simple interest account. The interest rate for the account is 3.75%. The function $P(t) = 500 + 18.75t$ represents the balance in the account as a function of time. Determine the account balance after each given number of years.

7. 3 years

$P(t) = 500 + 18.75t$

$P(3) = 500 + 18.75(3)$

$P(3) = 556.25$

In 3 years, the account balance will be $556.25.

8. 2 years

9. 10 years

10. 15 years

Name _____ Date _____

11. 50 years

12. 75 years

Hector deposits $400 into a simple interest account. The interest rate for the account is 5.25%. The function $P(t) = 400 + 21t$ represents the balance in the account as a function of time. Determine the number of years it will take for the account balance to reach each given amount.

13. $505

$P(t) = 400 + 21t$

$505 = 400 + 21t$

$105 = 21t$

$5 = t$

It will take 5 years for the account balance to reach $505.

14. $610

15. $1450

16. $2500

17. double the original deposit

18. triple the original deposit

Write a function to represent each problem situation.

19. Ronna deposits $500 into a compound interest account. The interest rate for the account is 4%.

$P(t) = P_0 \cdot (1 + r)^t$

$P(t) = 500 \cdot (1 + 0.04)^t$

$P(t) = 500 \cdot 1.04$

20. Leon deposits $250 into a compound interest account. The interest rate for the account is 6%.

21. Chen deposits $1200 into a compound interest account. The interest rate for the account is 3.5%.

22. Serena deposits $2700 into a compound interest account. The interest rate for the account is 4.25%.

23. Shen deposits $300 into a compound interest account. The interest rate for the account is 1.75%.

24. Lea deposits $450 into a compound interest account. The interest rate for the account is 5.5%.

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Cisco deposits $500 into a compound interest account. The interest rate for the account is 3.25%. The function $P(t) = 500 \cdot 1.0325^t$ represents the balance in the account as a function of time. Determine the account balance after each given number of years.

25. 2 years

$P(t) = 500 \cdot 1.0325^t$

$P(2) = 500 \cdot 1.0325^2$

$P(2) \approx 533.03$

In 2 years, the account balance will be $533.03.

26. 4 years

27. 15 years

28. 20 years

29. 50 years

30. 65 years

5

Mario deposits $1000 into a compound interest account. The interest rate for the account is 5%. The function $P(t) = 1000 \cdot 1.05^t$ represents the balance in the account as a function of time. Use a graphing calculator to estimate the number of years it will take for the account balance to reach each given amount.

31. $1500

It will take about 8.3 years for the account balance to reach $1500.

32. $4000

33. $6000

34. $10,000

35. double the original amount

36. triple the original amount

Use the simple and compound interest formula to complete each table. Round to the nearest cent.

37. Teresa has $300 to deposit into an account. The interest rate available for the account is 4%.

Quantity	Time	Simple Interest Balance	Compound Interest Balance
Units	years	dollars	dollars
Expression	t	$300 + 12t$	$300 \cdot 1.04^t$
	0	300.00	300.00
	2	324.00	324.48
	6	372.00	379.60
	10	420.00	444.07

38. Ye has $700 to deposit into an account. The interest rate available for the account is 6%.

Quantity	Time	Simple Interest Balance	Compound Interest Balance
Units			
Expression			
	0		
	3		
	10		
	20		

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39. Pablo has $1100 to deposit into an account. The interest rate available for the account is 3.5%.

Quantity / Units / Expression	Time	Simple Interest Balance	Compound Interest Balance
	0		
	5		
	10		
	30		

40. Ty has $525 to deposit into an account. The interest rate available for the account is 2.5%.

Quantity / Units / Expression	Time	Simple Interest Balance	Compound Interest Balance
	0		
	10		
	20		
	50		

41. Xavier has $2300 to deposit into an account. The interest rate available for the account is 3.75%.

Quantity	Time	Simple Interest Balance	Compound Interest Balance
Units			
Expression			
	0		
	2		
	5		
	15		

42. Denisa has $100 to deposit into an account. The interest rate available for the account is 6.25%.

Quantity	Time	Simple Interest Balance	Compound Interest Balance
Units			
Expression			
	0		
	5		
	15		
	30		

Name _____ Date _____

Downtown and Uptown
Graphs of Exponential Functions

Vocabulary

Define the term in your own words.

1. horizontal asymptote

Problem Set

Write a function that represents each population as a function of time.

1. Blueville has a population of 7000. Its population is increasing at a rate of 1.4%.
   $P(t) = P_0 \cdot (1 + r)^t$
   $P(t) = 7000 \cdot (1 + 0.014)^t$
   $P(t) = 7000 \cdot 1.014^t$

2. Youngstown has a population of 12,000. Its population is increasing at a rate of 1.2%.

3. Greenville has a population of 8000. Its population is decreasing at a rate of 1.75%.

4. North Park has a population of 14,000. Its population is decreasing at a rate of 3.1%.

5. West Lake has a population of 9500. Its population is increasing at a rate of 2.8%.

6. Springfield has a population of 11,500. Its population is decreasing at a rate of 1.25%.

Waynesburg has a population of 16,000. Its population is increasing at a rate of 1.5%. The function $P(t) = 16{,}000 \cdot 1.015^t$ represents the population as a function of time. Determine the population after each given number of years. Round your answer to the nearest whole number.

7. 1 year

$P(t) = 16{,}000 \cdot 1.015^t$

$P(1) = 16{,}000 \cdot 1.015^1$

$P(1) = 16{,}240$

The population after 1 year will be 16,240.

8. 3 years

9. 5 years

10. 10 years

11. 20 years

12. 50 years

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Morristown has a population of 18,000. Its population is decreasing at a rate of 1.2%. The function, $P(t) = 18{,}000 \cdot 0.988^t$ represents the population as a function of time. Use a graphing calculator to estimate the number of years it will take for the population to reach each given amount.

13. 17,000

It will take about 4.7 years for the population to reach 17,000.

14. 15,000

15. half

16. one-third

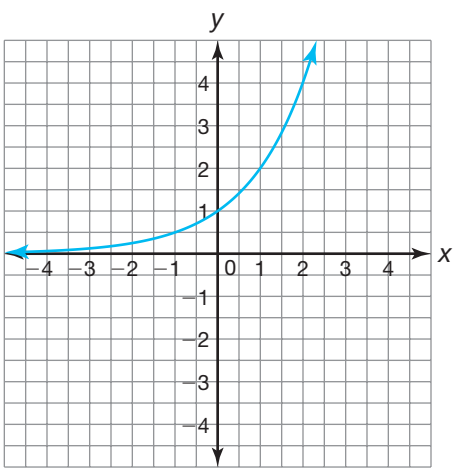
17. 0

18. 10,000

Complete each table and graph the function. Identify the *x*-intercept, *y*-intercept, asymptote, domain, range, and interval(s) of increase or decrease for the function.

19. $f(x) = 2^x$

x	*f*(*x*)
−2	$\frac{1}{4}$
−1	$\frac{1}{2}$
0	1
1	2
2	4



x-intercept: none

y-intercept: (0, 1)

asymptote: $y = 0$

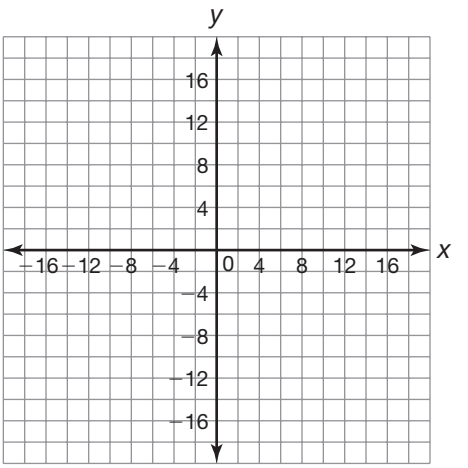
domain: all real numbers

range: $y > 0$

interval(s) of increase or decrease: increasing over the entire domain

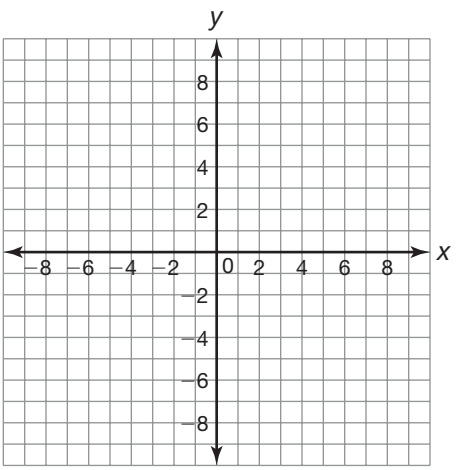
20. $f(x) = 4^x$

x	f(x)
−2	
−1	
0	
1	
2	



21. $f(x) = \frac{1^x}{3}$

x	f(x)
−2	
−1	
0	
1	
2	



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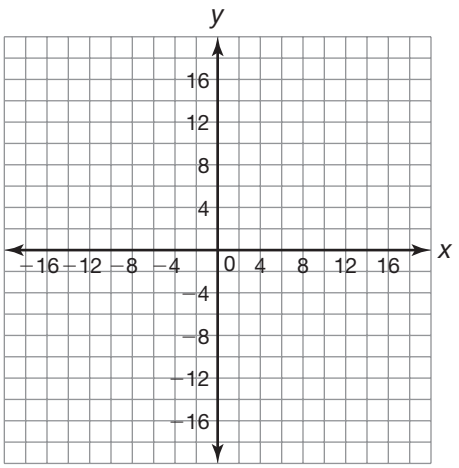
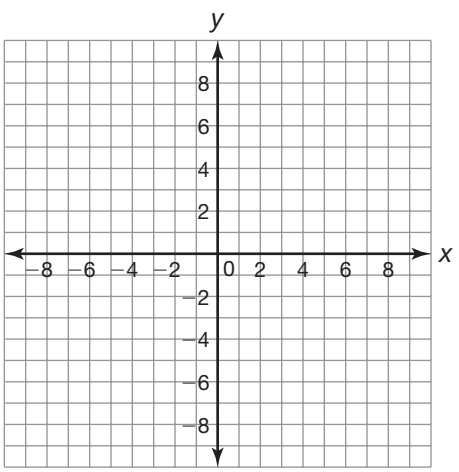
22. $f(x) = \frac{1^x}{4}$

x	f(x)
−2	
−1	
0	
1	
2	



23. $f(x) = -2 \cdot 2^x$

x	f(x)
−2	
−1	
0	
1	
2	



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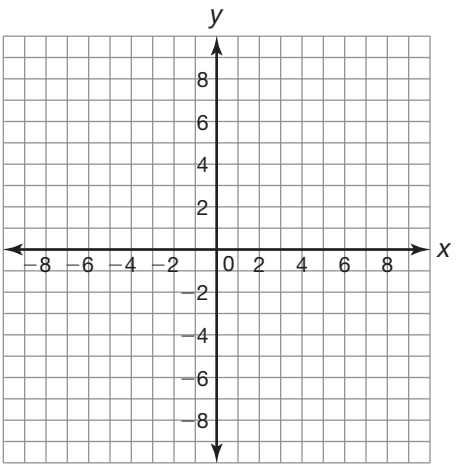
24. $f(x) = -2 \cdot \frac{1}{2}^x$

x	$f(x)$
−2	
−1	
0	
1	
2	



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Let the Transformations Begin!

Translations of Linear and Exponential Functions

Vocabulary

Match each definition to its corresponding term.

1. the mapping, or movement, of all the points of a figure in a plane according to a common operation
2. a type of transformation that shifts the entire graph left or right
3. a function that can be described as the simplest function of its type
4. a type of transformation that shifts the entire graph up or down
5. the variable on which a function operates
6. notation that uses ordered pairs to describe a transformation on a coordinate plane

A basic function

B transformation

C vertical translation

D coordinate notation

E argument of a function

F horizontal translation

5

Problem Set

Rewrite each function $g(x)$ in terms of the basic function $f(x)$.

1. $f(x) = x$
   $g(x) = x + 4$
   $g(x) = f(x) + 4$

2. $f(x) = x$
   $g(x) = x - 7$

3. $f(x) = x$
   $g(x) = x - 8$

4. $f(x) = 3^x$
   $g(x) = 3^x + 1$

5. $f(x) = 3^x$
   $g(x) = 3^x + 2$

6. $f(x) = 4^x$
   $g(x) = 4^x - 6$

Represent each vertical translation, $g(x)$, using coordinate notation.

7. $f(x) = x$
$g(x) = x + 8$
$(x, y) \rightarrow (x, y + 8)$

8. $f(x) = x$
$g(x) = x + 9$

9. $f(x) = x$
$g(x) = x - 4$

10. $f(x) = 4^x$
$g(x) = 4^x - 1$

11. $f(x) = 4^x$
$g(x) = 4^x + 6$

12. $f(x) = 3^x$
$g(x) = 3^x - 5$

Rewrite each function $g(x)$ in terms of the basic function $f(x)$.

13. $f(x) = 3^x$
$g(x) = 3^{(x + 1)}$
$g(x) = 3^{(x + 1)} = f(x + 1)$

14. $f(x) = 3^x$
$g(x) = 3^{(x + 5)}$

15. $f(x) = 2^x$
$g(x) = 2^{(x - 1)}$

16. $f(x) = 2^x$
$g(x) = 2^{(x - 9)}$

17. $f(x) = 2x$
$g(x) = 2(x - 3)$

18. $f(x) = 2x$
$g(x) = 2(x + 4)$

Represent each horizontal translation, $g(x)$, using coordinate notation.

19. $f(x) = 3^x$
$g(x) = 3^{(x - 2)}$
$(x, y) \rightarrow (x + 2, y)$

20. $f(x) = 3^x$
$g(x) = 3^{(x + 2)}$

21. $f(x) = 4^x$
$g(x) = 4^{(x + 1)}$

22. $f(x) = 4^x$
$g(x) = 4^{(x - 3)}$

23. $f(x) = 3x$
$g(x) = 3(x - 1)$

24. $f(x) = 3x$
$g(x) = 3(x + 1)$

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Describe each graph in relation to its basic function.

25. Compare $f(x) = (x) + b$ when $b < 0$ to the basic function $h(x) = x$.
The graph of $f(x)$ is b units below the graph of $h(x)$.

26. Compare $f(x) = b^{x-c}$ when $c > 0$ to the basic function $h(x) = b^x$.

27. Compare $f(x) = (x - b)$ when $b > 0$ to the basic function $h(x) = x$.

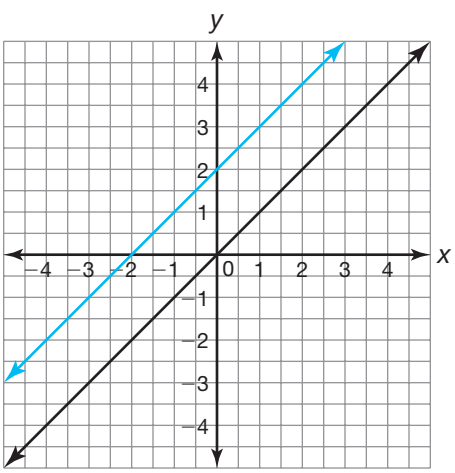
28. Compare $f(x) = b^{x-c}$ when $c < 0$ to the basic function $h(x) = b^x$.

29. Compare $f(x) = b^x + k$ when $k > 0$ to the basic function $h(x) = b^x$.

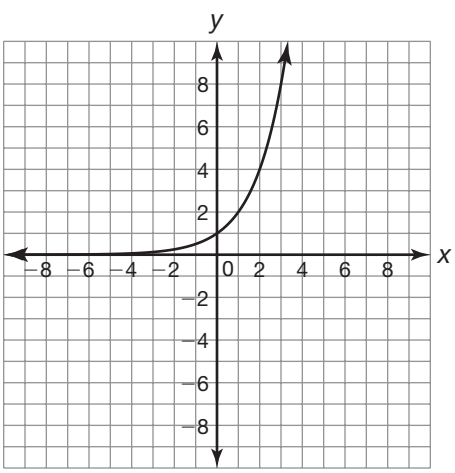
30. Compare $f(x) = (x - b)$ when $b < 0$ to the basic function $h(x) = x$.

Each coordinate plane shows the graph of $f(x)$. Sketch the graph of $g(x)$.

31. $g(x) = f(x) + 2$



32. $g(x) = f(x) + 4$



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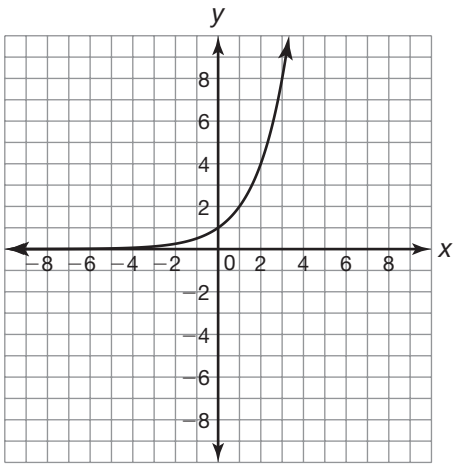
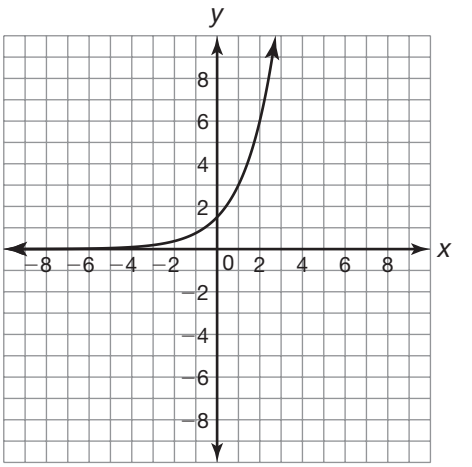
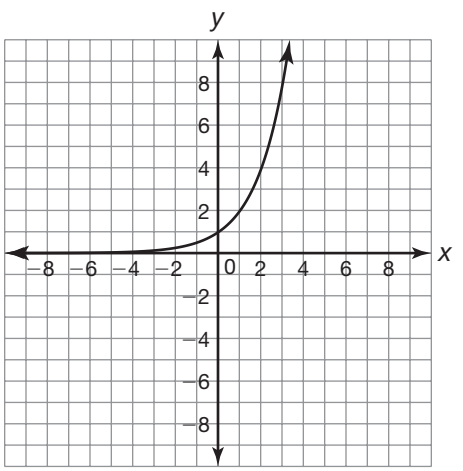
33. $g(x) = f(x) - 2$



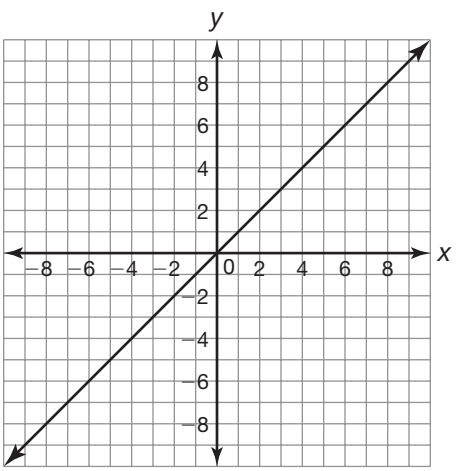
34. $g(x) = f(x - 3)$



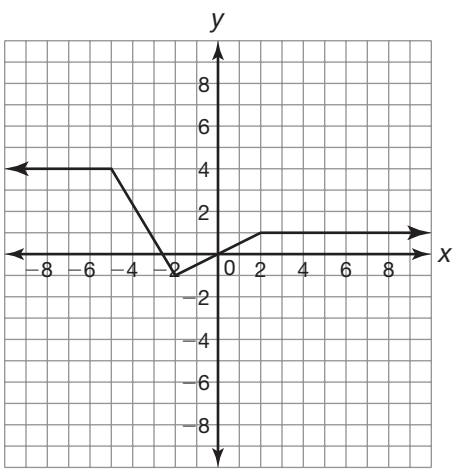
35. $g(x) = f(x + 3)$



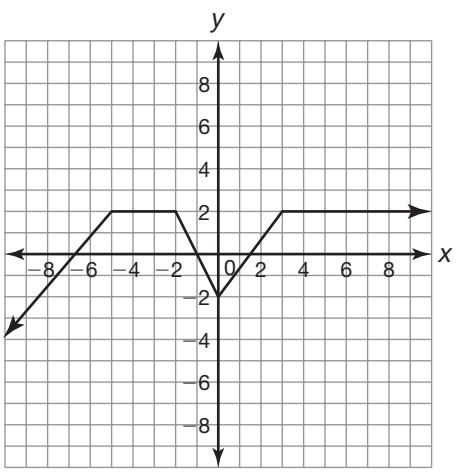
36. $g(x) = f(x - 4)$



37. $g(x) = f(x) + 5$



38. $g(x) = f(x + 5)$



Name _____ Date _____

Write the equation of the function given each translation.

39. $f(x) = x$

Vertical translation up 2 units

$g(x) = x + 2$

40. $f(x) = x$

Vertical translation down 5 units

41. $f(x) = 3^x$

Horizontal translation right 4 units

42. $f(x) = 2^x$

Horizontal translation left 6 units

43. $f(x) = 3^x$

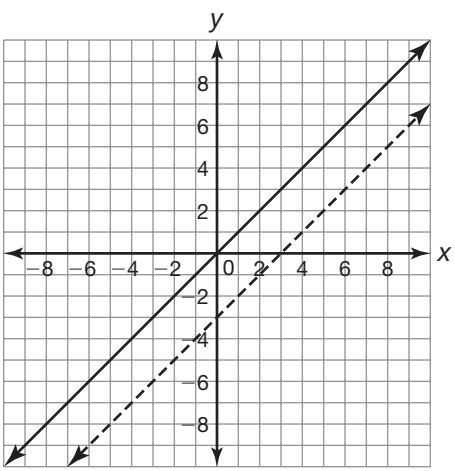
Vertical translation down 5 units

44. $f(x) = 4x$

Horizontal translation right 3 units

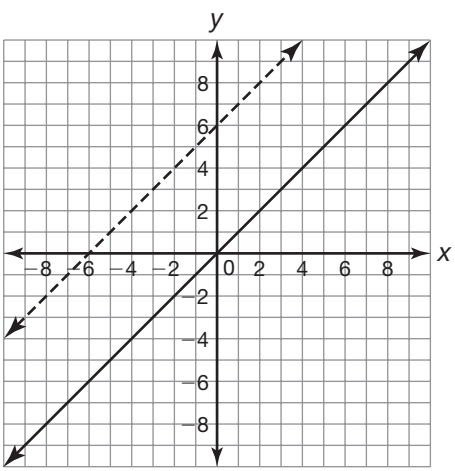
Each graph shows the function $g(x)$ as a translation of the function $f(x)$. Write the equation of $g(x)$.

45.



$g(x) = x - 3$

46.



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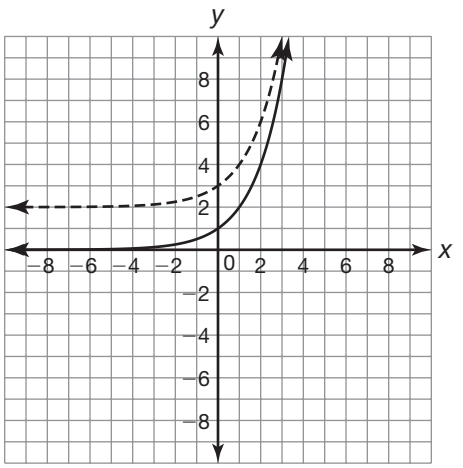

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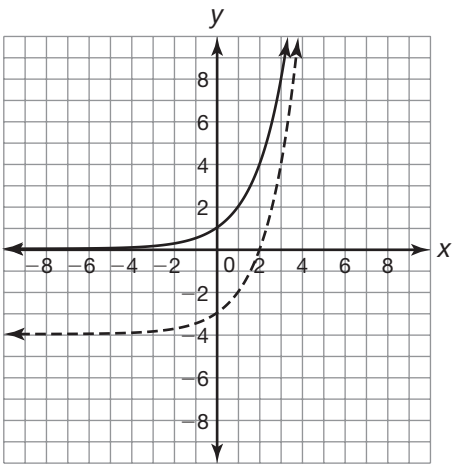

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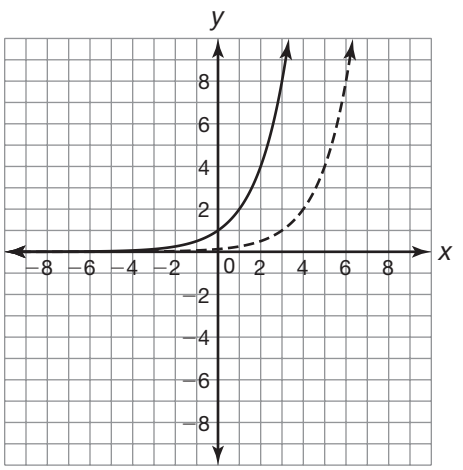

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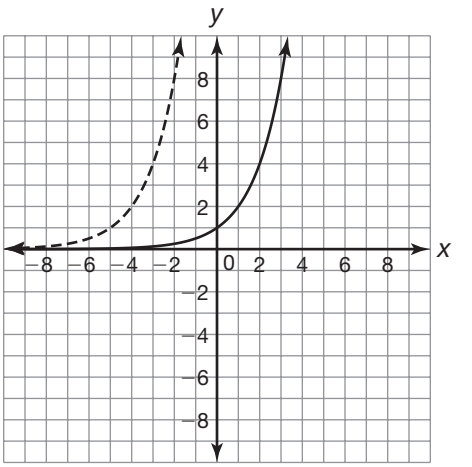

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Name _____ Date _____

Take Some Time to Reflect

Reflections of Linear and Exponential Functions

Vocabulary

Define each term in your own words.

1. reflection

2. line of reflection

Problem Set

Rewrite each function $g(x)$ in terms of the basic function $f(x)$.

1. $f(x) = 3^x$
   $g(x) = -(3^x)$
   $g(x) = -f(x)$

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

3. $f(x) = 4^x$
   $g(x) = -(4^x)$

4. $f(x) = 4^x$
   $g(x) = 4^{-x}$

5. $f(x) = 2^x + 4$
   $g(x) = 2^{-x} + 4$

6. $f(x) = 2^x - 1$
   $g(x) = -(2^x - 1)$

Represent each reflection using coordinate notation. Identify whether $g(x)$ is a reflection about a horizontal line of reflection or a vertical line of reflection.

7. $f(x) = 2^x$
$g(x) = -(2^x)$
$(x, y) \rightarrow (x, -y)$
$g(x)$ is a horizontal reflection about $y = 0$.

8. $f(x) = 2^x$
$g(x) = 2^{-x}$

9. $f(x) = 5x$
$g(x) = -(5x)$

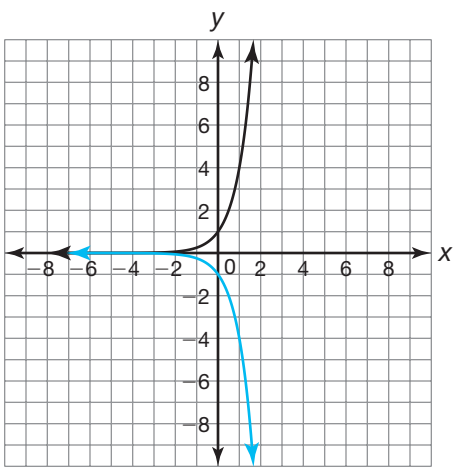
10. $f(x) = 5x$
$g(x) = 5(-x)$

11. $f(x) = 3^x + 7$
$g(x) = 3^{-x} + 7$

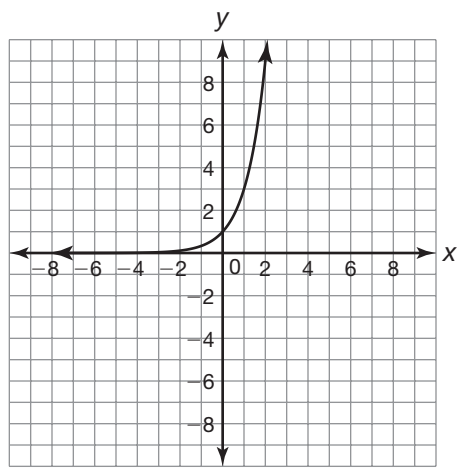
12. $f(x) = 4^x - 3$
$g(x) = -(4^x - 3)$

Each coordinate plane shows the graph of $f(x)$. Sketch the graph of $g(x)$.

13. $g(x) = -f(x)$



14. $g(x) = f(-x)$



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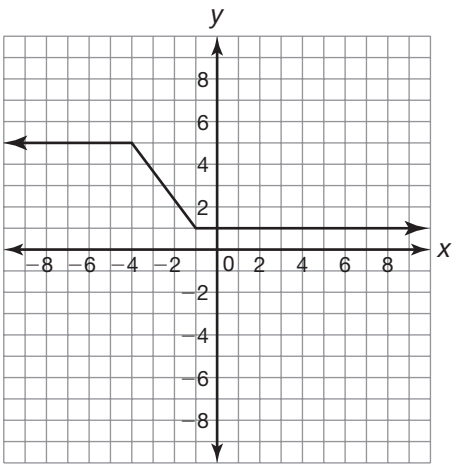
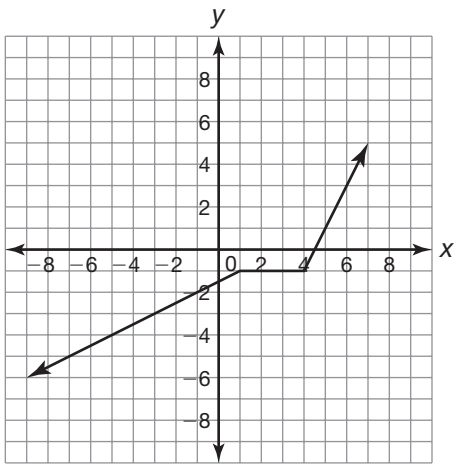
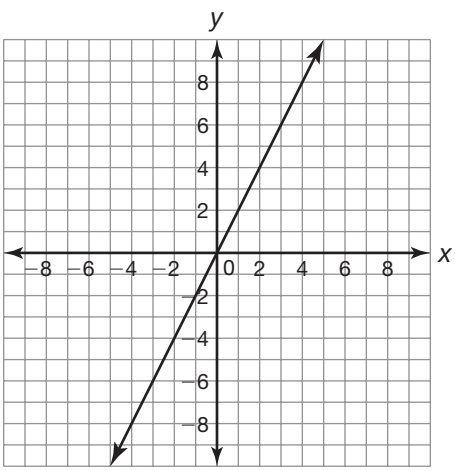
15. $g(x) = f(-x)$



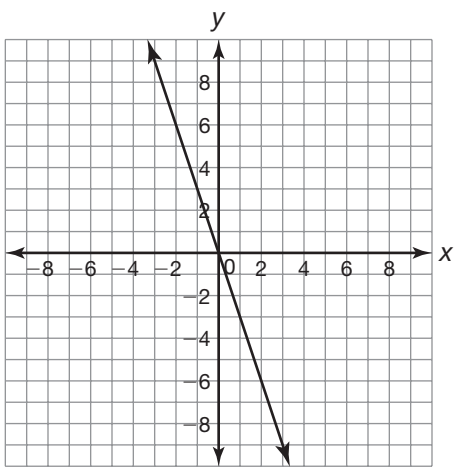
16. $g(x) = -f(x)$



17. $g(x) = -f(x)$



18. $g(x) = f(-x)$



Write a function, $g(x)$, to describe each reflection of $f(x)$.

19. $f(x) = 3^x$

Reflection about the horizontal line $y = 0$.

$g(x) = -3^x$

20. $f(x) = 4^x$

Reflection about the vertical line $x = 0$.

21. $f(x) = -12x$

Reflection about the vertical line $x = 0$.

22. $f(x) = 7x$

Reflection about the horizontal line $y = 0$.

23. $f(x) = 2^x + 9$

Reflection about the horizontal line $y = 0$.

24. $f(x) = -8^x + 1$

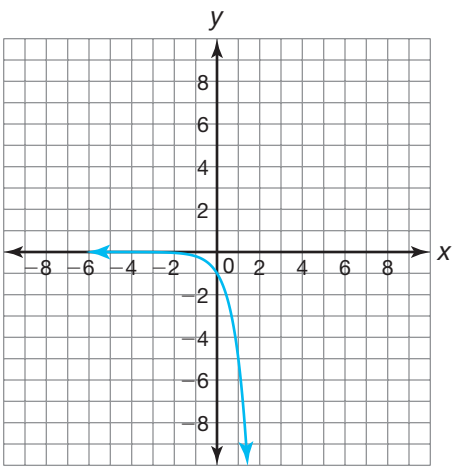
Reflection about the vertical line $x = 0$.

Write an equation for $g(x)$ given each transformation. Sketch the graph of $g(x)$.

25. $f(x) = 5^x$

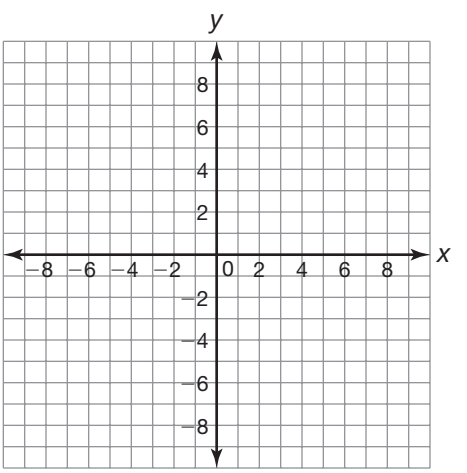
$g(x)$ is a reflection of $f(x)$ over the line $y = 0$.

$g(x) = -5^x$



26. $f(x) = 5^x$

$g(x)$ is a reflection of $f(x)$ over the line $x = 0$.



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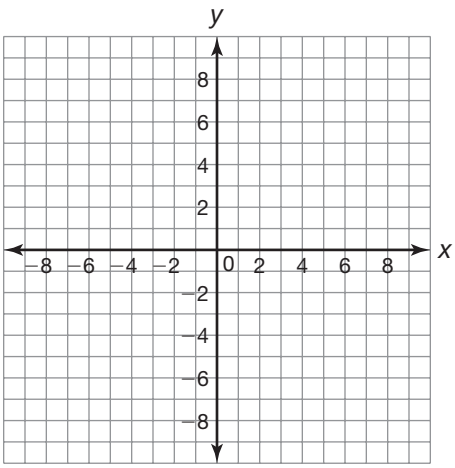
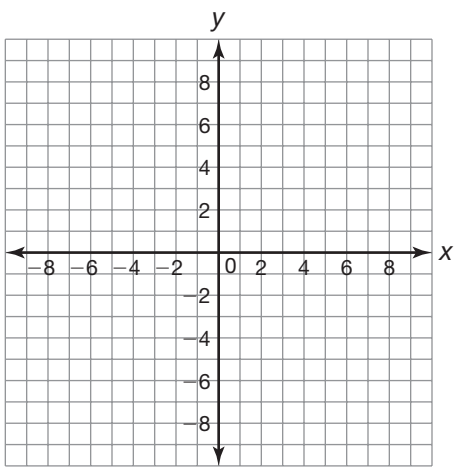
27. $f(x) = 3^x$

$g(x)$ is a translation of $f(x)$ up 2 units.



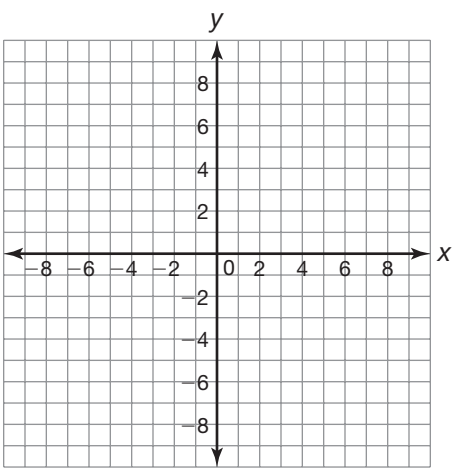
28. $f(x) = 4^x$

$g(x)$ is a translation of $f(x)$ right 3 units.



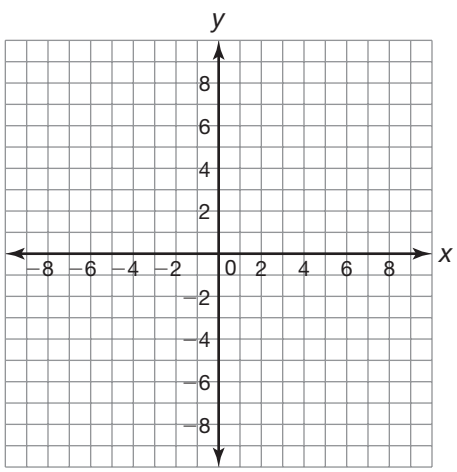
29. $f(x) = 4^x$

$g(x)$ is a translation of $f(x)$ down 4 units.



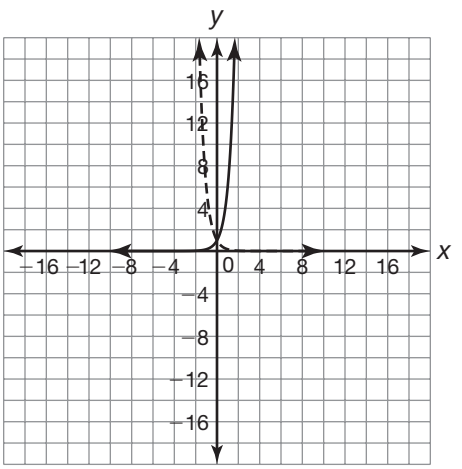
30. $f(x) = 3^x$

$g(x)$ is a translation of $f(x)$ left 5 units.



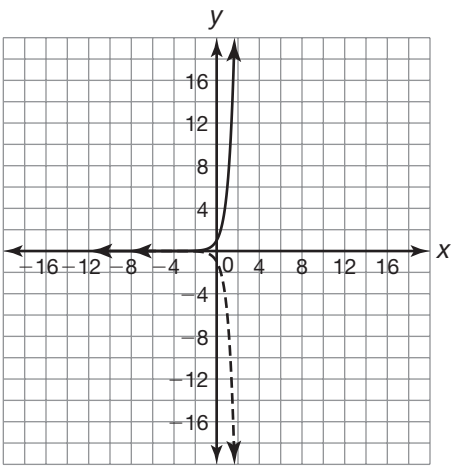
Identify the transformation required to transform $f(x)$ to $g(x)$ as shown in each graph.

31.



$g(x)$ is a reflection of $f(x)$ over the line $x = 0$.

32.



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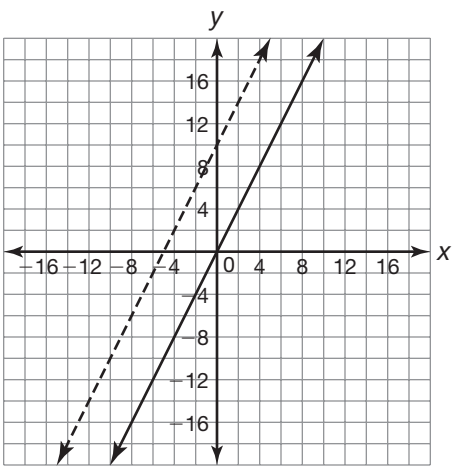
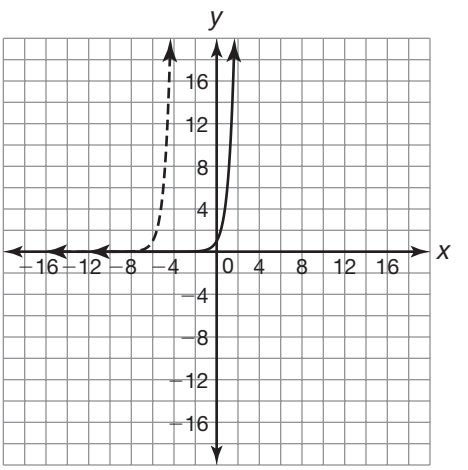


34.



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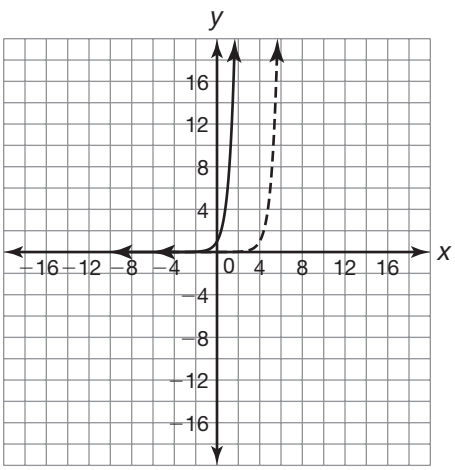
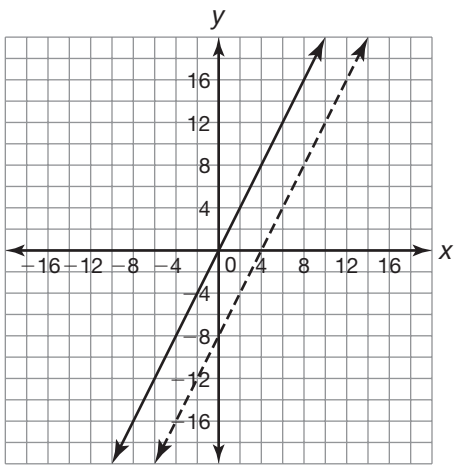
35.



36.



Identify the transformation required to transform each $f(x)$ to $g(x)$.

37. $f(x) = 8^x$

$g(x) = -(8^x)$

$g(x)$ is a reflection of $f(x)$ over the line $y = 0$.

38. $f(x) = 9^x$

$g(x) = 9^{-x}$

39. $f(x) = 8^x$

$g(x) = 8^x - 5$

40. $f(x) = 3^x$

$g(x) = 3^{x-1}$

41. $f(x) = 10x$

$g(x) = 10x + 2$

42. $f(x) = -12x$

$g(x) = -12(x + 1)$

5

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Radical! Because It's Cliché!
Properties of Rational Exponents

Vocabulary

Match each definition to its corresponding term.

1. the number a in the expression $\sqrt[n]{a}$
2. the number b when $b^3 = a$
3. the exponent $\frac{1}{n}$ in the expression $a^{\frac{1}{n}}$
4. the number n in the expression $\sqrt[n]{a}$
5. the number b when $b^n = a$

A cube root

B index

C nth root

D radicand

E rational exponent

Problem Set

Write each expression as a single power.

1. $\frac{10^5}{10^8}$

   $\frac{10^5}{10^8} = 10^{5-8} = 10^{-3}$

2. $\frac{10^0}{10^4}$

3. $\frac{10^2}{10^5}$

4. $\frac{x^4}{x^9}$

5. $\frac{5^3}{5^{10}}$

6. $\frac{y^2}{y^8}$

Evaluate each expression.

7. $\sqrt[3]{216} =$

$\sqrt[3]{216} = 6$

8. $\sqrt[3]{64} =$

9. $\sqrt[3]{-125} =$

10. $\sqrt[3]{-343} =$

11. $\sqrt[3]{729} =$

12. $\sqrt[3]{-8} =$

Evaluate each expression.

13. $\sqrt[5]{32} =$

$\sqrt[5]{32} = 2$

14. $\sqrt[4]{625} =$

15. $\sqrt[6]{729} =$

16. $\sqrt[5]{-1024} =$

17. $\sqrt[7]{-128} =$

18. $\sqrt[5]{-243} =$

Write each radical as a power.

19. $\sqrt[4]{15}$

$\sqrt[4]{15} = 15^{\frac{1}{4}}$

20. $\sqrt[3]{5}$

21. $\sqrt[4]{31}$

22. $\sqrt[3]{x}$

23. $\sqrt[6]{y}$

24. $\sqrt{z}$

Name _____ Date _____

Write each power as a radical.

25. $12^{\frac{1}{3}}$

$12^{\frac{1}{3}} = \sqrt[3]{12}$

26. $7^{\frac{1}{5}}$

27. $18^{\frac{1}{4}}$

28. $a^{\frac{1}{2}}$

29. $d^{\frac{1}{5}}$

30. $c^{\frac{1}{6}}$

Write each expression in radical form.

31. $5^{\frac{2}{3}}$

$5^{\frac{2}{3}} = \sqrt[3]{5^2}$

32. $8^{\frac{2}{5}}$

33. $18^{\frac{3}{4}}$

34. $x^{\frac{3}{5}}$

35. $y^{\frac{4}{3}}$

36. $m^{\frac{5}{2}}$

5

Write each expression in rational exponent form.

37. $\sqrt[4]{6^3}$

$\sqrt[4]{6^3} = 6^{\frac{3}{4}}$

38. $\sqrt[5]{8^4}$

39. $\sqrt[3]{12^2}$

40. $\sqrt{n^5}$

41. $\sqrt[4]{p^7}$

42. $\sqrt[5]{m^3}$

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Checkmate!

Solving Exponential Functions

Problem Set

Complete each table. Write a function that represents the data in the table and explain how you determined your expression.

1.

x	$f(x)$	Expression
0	1	3^0
1	3	3^1
2	9	3^2
3	27	3^3
4	81	3^4
5	243	3^5
x	3^x	-----

The exponents of the expressions in the third column equal x. So, $f(x) = 3x$.

2.

x	$f(x)$	Expression
0	5	$4^0 + 5$
1	9	
2	21	
3	69	
4	261	
5	1029	
x		-----

3.

x	$f(x)$	Expression
0	-1	-2^0
1	-2	
2	-4	
3		
4		
5		
x		-----

4.

x	$f(x)$	Expression
-2	$-\frac{1}{2}$	-2^{-1}
-1	-1	
0	-2	
1		
2		
3		
x		-----

5.

x	$f(x)$	Expression
0	$-\frac{1}{25}$	-5^{-2}
1	$-\frac{1}{5}$	
2	-1	
3		
4		
5		
x		-----

6.

x	$f(x)$	Expression
0	16	2^4
1	8	
2	4	
3		
4		
5		
x		-----

5

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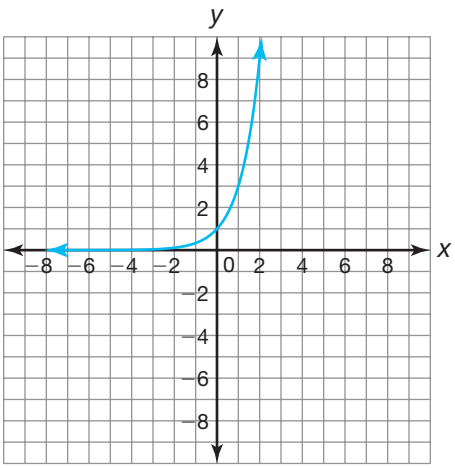
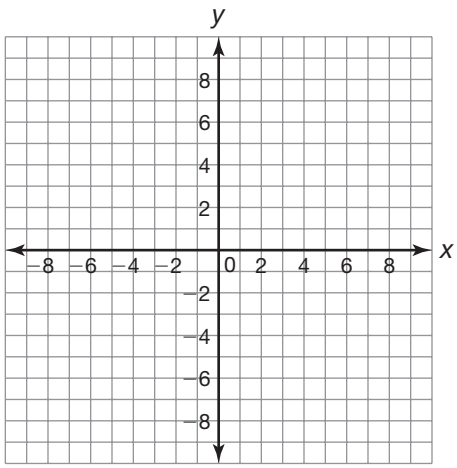
Graph each function.

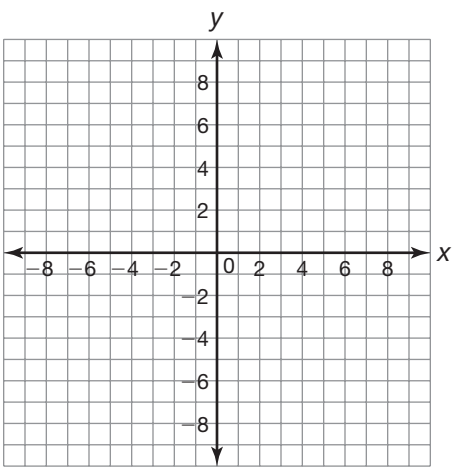
7. $f(x) = 3^x$



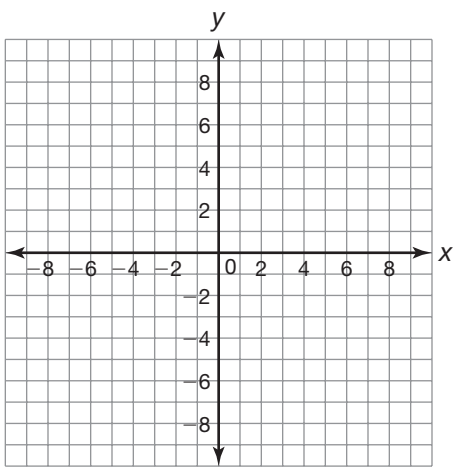
8. $f(x) = 8^{-x}$



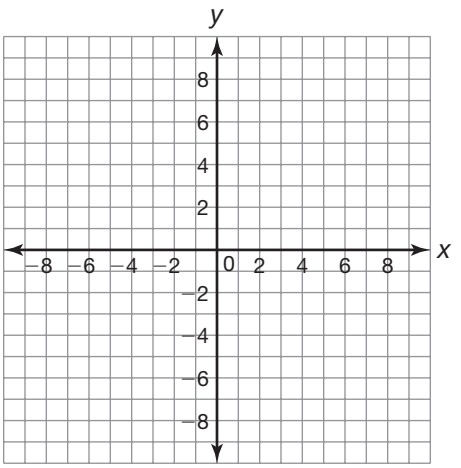
9. $f(x) = 5 \cdot 2^{-x}$



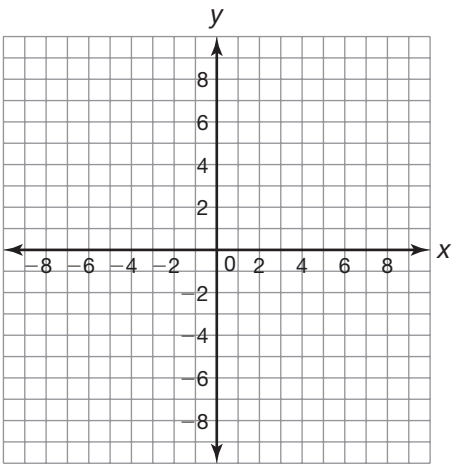
10. $f(x) = 2 \cdot 3^x$



11. $f(x) = -4^x$



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



Use the intersection feature of your graphing calculator to answer each question.

13. For the function $f(x) = 6^{x-1}$ determine the value of x for which $f(x) = 7776$.

For the function $f(x) = 6^{x-1}$, $f(x) = 7776$ when $x = 6$.

14. For the function $f(x) = -4^{x+2}$ determine the value of x for which $f(x) = -4096$.

15. For the function $f(x) = 5^{-x+1}$ determine the value of x for which $f(x) = 625$.

16. For the function $f(x) = 2^{x+4}$ determine the values of x for which $f(x) < 128$.

17. For the function $f(x) = -3^{x+1}$ determine the values of x for which $f(x) > -9$.

18. For the function $f(x) = 5^{x+2}$ determine the values of x for which $f(x) = 15{,}625$.

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Solve each exponential equation for x.

19. $4^x = 256$

$4^x = 256$

$4^4 = 256$

$x = 4$

20. $6^{3x} = 216$

21. $2^{5-x} = \frac{1}{16}$

22. $3^{-2x} = \frac{1}{729}$

23. $4^{x+3} = 4$

24. $\frac{1}{5^{x+4}} = 625$

25. $-6^{x-2} = \frac{1}{-1296}$

26. $\frac{1}{2^{x-6}} = \frac{1}{4}$

For each pair of expressions, determine whether the second expression is an equivalent form of the first expression.

27. 2^{s-1} $\frac{1}{2}(2)^2$

$2^{-1} \cdot 2^s$

2^{s-1}

28. 3^{x+1} $\frac{1}{3}(3)^x$

29. 2^{2x+1} $2(4)^x$

30. 5^{2x-1} $\frac{1}{5}(10)^x$

31. $4(64)^x$ 4^{3x+1}

32. $\frac{1}{2}\left(\frac{1}{8}\right)^x$ 2^{-3x-1}

Write the exponential function represented by the table of values.

33.

x	y
0	2
1	1
2	$\frac{1}{2}$
3	$\frac{1}{4}$

$f(x) = a \cdot b^x$

$f(x) = 2 \cdot b^x$

$1 = 2 \cdot b^1$

$\frac{1}{2} = b$

$f(x) = 2\left(\frac{1}{2}\right)^x$

34.

x	y
0	1
2	25
4	625
6	15625

Name _____ Date _____

35.

x	*y*
0	1
1	$\frac{3}{4}$
2	$\frac{9}{16}$
3	$\frac{27}{64}$

36.

x	*y*
0	-1
2	-4
4	-16
6	-64

37.

x	*y*
0	3
3	$\frac{1}{9}$
6	$\frac{1}{243}$
9	$\frac{1}{6561}$

38.

x	*y*
0	-2
1	$-\frac{1}{2}$
2	$-\frac{1}{8}$
3	$-\frac{1}{32}$

5