Score: 1 of 1 pt | 1 of 32 | **Test Score:** 96.88%, 31 of 32 pts

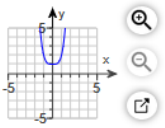
4.1.37

Graph the function on paper, and then choose the correct graph.

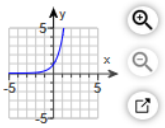
$f(x) = 4^x$

Choose the correct graph.

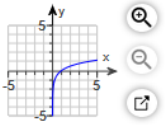
A.



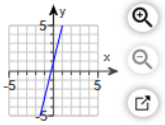
B.



C.



D.



Review Quiz: Practice Quiz 4 (Chapter 4)

Close

Score: 1 of 1 pt | 2 of 32 | **Test Score:** 96.88%, 31 of 32 pts

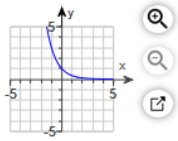
4.1.41

Graph the function.

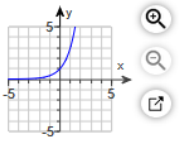
$f(x) = \left(\frac{1}{3}\right)^x$

Choose the correct graph.

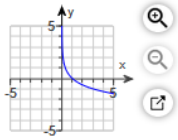
A.



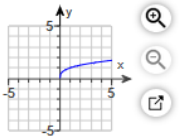
B.



C.



D.



Score: 1 of 1 pt | 3 of 32 | **Test Score:** 96.88%, 31 of 32 pts

4.1.61

Write an equation of the graph in the final position.

The graph of $y = 3^x$ is shifted 4 units to the left and then 8 units up.

Which of the following is the equation of the graph?

- A. $y = 3^{x-4} - 8$
- B. $y = 3^{x-4} + 8$
- C. $y = 3^{x+4} - 8$
- D. $y = 3^{x+4} + 8$ ✔

Review Quiz: Practice Quiz 4 (Chapter 4) Close

Score: 1 of 1 pt | 4 of 32 | **Test Score:** 96.88%, 31 of 32 pts

4.1.65

Using the formula for simple interest and the given values, find I.

P = $951; r = 14%; t = 4 months; I = ?

I = $ 44.38 (Round to two decimal places.)

Review Quiz: Practice Quiz 4 (Chapter 4)

Close

Score: 1 of 1 pt | 5 of 32 | **Test Score:** 96.88%, 31 of 32 pts

4.1.67

For the values P = $6603, r = 4.4%, and t = 3 years and 6 months, find the simple interest.

The simple interest is $ 1016.86 (Round to two decimal places as needed.)

Score: 1 of 1 pt | 6 of 32 | **Test Score:** 96.88%, 31 of 32 pts

4.1.119

Evaluate.

$\left(\frac{4}{5}\right)^{-2}$

$\left(\frac{4}{5}\right)^{-2} = \frac{25}{16}$

Score: 1 of 1 pt | 7 of 32 | **Test Score:** 96.88%, 31 of 32 pts

Next Question

4.2.7

Write the equation in its equivalent logarithmic form.

$8^3 = 512$

What is the equivalent logarithmic form of the equation?

$3 = \log_8 512$

Score: 1 of 1 pt | 8 of 32 | **Test Score:** 96.88%, 31 of 32 pts

4.2.9

Write in logarithmic form.

$\left(\frac{1}{5}\right)^{-3} = 125$

What is the equivalent logarithmic equation?

$\log_{1/5} 125 = -3$

(Simplify your answers. Type integers or fractions.)

Score: 1 of 1 pt | 9 of 32 | **Test Score:** 96.88%, 31 of 32 pts

4.2.13

Convert to a logarithmic equation.

$5^{-3} = 0.008$

The equivalent logarithmic equation is

$\log_5 .008 = -3$.

(Simplify your answers. Type an integer or a decimal.)

Score: 1 of 1 pt | 10 of 32 | **Test Score:** 96.88%, 31 of 32 pts

4.2.19

Next Question

Convert to an exponential equation.

$\log_2 8 = 3$

Complete the equivalent exponential equation.

$2^3 = 8$

(Type your answer using exponential notation. Do not simplify.)

Score: 1 of 1 pt | 11 of 32 | **Test Score:** 96.88%, 31 of 32 pts

4.2.27

Write the equation in exponential form.

$\log_{49} 7 = \frac{1}{2}$

The equation in exponential form is $49^{\frac{1}{2}} = 7$.

(Type an equation. Use integers or fractions for any numbers in the equation.)

Score: 1 of 1 pt | 12 of 32 | **Test Score:** 96.88%, 31 of 32 p

4.2.31

Evaluate the following.

$\log_{14} 196$

$\log_{14} 196 = 2$

Score: 1 of 1 pt | 13 of 32 | **Test Score:** 96.88%, 31 of 32 p

4.2.33

Evaluate the expression without using a calculator.

$\log 1000$

$\log 1000 = 3$

Score: 1 of 1 pt | 14 of 32 | **Test Score:** 96.88%, 31 of 32 pts

4.2.35

Find the logarithm.

$\log_5 \frac{1}{625}$

$\log_5 \frac{1}{625} = -4$

Score: 1 of 1 pt | 15 of 32 | **Test Score:** 96.88%, 31 of 32 pts

Next Question

4.2.41

Evaluate the following expression.

$\log_8 1$

$\log_8 1 = 0$ (Simplify your answer.)

Score: 1 of 1 pt | 16 of 32 | **Test Score:** 96.88%, 31 of 32 pts

4.2.47

Simplify.

$3^{\log_3(7)}$

$3^{\log_3(7)} = 7$

Score: 1 of 1 pt | 17 of 32 | **Test Score:** 96.88%, 31 of 32 pts

Next Question

4.2.53

Find the domain of the following function.

$f(x) = \log_5(x-6)$

The domain is $(6,\infty)$. (Type your answer in interval notation.)

Score: 1 of 1 pt | 18 of 32 | **Test Score:** 96.88%, 31 of 32 pts

Next Question

4.2.55

Find the domain of the following function.

$f(x) = \log_2\sqrt{x+4}$

The domain is $(-4,\infty)$. (Type your answer in interval notation.)

Score: 1 of 1 pt | 19 of 32 | **Test Score:** 96.88%, 31 of 32 pts

4.2.85

Solve for x.

$\log x = 4$

The solution is x = 10000.
(Simplify your answer. Type an integer or a fraction. Use a comma to separate answers as needed.)

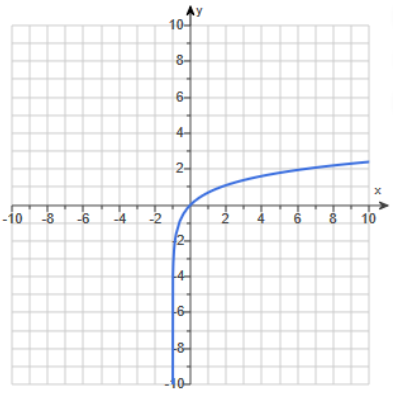
Score: 1 of 1 pt | 20 of 32 | **Test Score:** 96.88%, 31 of 32 pts

4.2.89

Begin with the graph of $f(x) = \ln x$ and use transformations to sketch the graph of the given function.

$g(x) = \ln(x + 1)$

Use the graphing tool to graph the equation.



Score: 1 of 1 pt | 21 of 32 | **Test Score:** 96.88%, 31 of 32 pts

4.3.5

$\log_a(u + v) = \log_a u + \log_a v$. State whether the statement is true or false.

Choose the correct answer below.

- [x] False
- [ ] True

Score: 1 of 1 pt | 22 of 32 | **Test Score:** 96.88%, 31 of 32 pts

4.3.13

Overview, question 22 of 32

Given that $\log x = 3$, $\log y = 5$, and $\log 2 \approx 0.3$, evaluate the following expression without using a calculator.

$\log(2x^2y)$

$\log(2x^2y) \approx$ 11.3 (Type an integer or a decimal.)

Score: 1 of 1 pt | 23 of 32 | **Test Score:** 96.88%, 31 of 32 pts

4.3.19

Write the following expression in expanded form.

$\ln [x(x+7)]$

$\ln [x(x+7)] = \ln (x) + \ln (x+7)$

Score: 1 of 1 pt | 24 of 32 | **Test Score:** 96.88%, 31 of 32 pts

4.3.27

Write the following expression in expanded form.

$$\log \frac{\sqrt{x^2+7}}{x+9}$$

Choose the correct answer below.

A. $\log \frac{\sqrt{x^2+7}}{x+9} = 2 \log \left(x^2+7\right) + \log (x+9)$

B. $\log \frac{\sqrt{x^2+7}}{x+9} = 2 \log \left(x^2+7\right) - \log (x+9)$

C. $\log \frac{\sqrt{x^2+7}}{x+9} = \frac{1}{2} \log \left(x^2+7\right) - \log (x+9)$

D. $\log \frac{\sqrt{x^2+7}}{x+9} = \frac{1}{2} \log \left(x^2+7\right) + \log (x+9)$

Score: 1 of 1 pt | 25 of 32 | **Test Score:** 96.88%, 31 of 32 pts

4.3.45

Write the following expression in condensed form.

$\ln p + 3\ln q + 6\ln r$

$\ln p + 3\ln q + 6\ln r = \ln\left(pq^3r^6\right)$ (Simplify your answer.)

Score: 1 of 1 pt | 26 of 32 | **Test Score:** 96.88%, 31 of 32 pts

4.3.57-GC

Use the change of base formula to find the value of the following logarithm. Do not round logarithms in the change of base formula.

$\log_8 15$

$\log_8 15 = 1.3023$

(Simplify your answer. Do not round until the final answer. Then round to four decimal places as needed.)

Score: 1 of 1 pt | 27 of 32 | **Test Score:** 96.88%, 31 of 32 pts

4.4.7

Solve for x.

$5^x = 125$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

- A. The solution is x = 3.
  (Simplify your answer. Type an integer or a fraction. Use a comma to separate answers as needed.)
- B. The solution is not a real number.

Score: 1 of 1 pt | 28 of 32 | Next Question | **Test Score:** 96.88%, 31 of 32 pts

4.4.9

Solve the equation.

$16^x = 32$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

A. The solution is $\frac{5}{4}$.
(Simplify your answer. Type an integer or a fraction.)

B. The solution is not a real number.

4.4.15

Solve for x.

$\ln x = 6$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

A. The solution set is $\{e^6\}$.
(Type an exact answer in simplified form. Type exponential notation with positive exponents. Use a comma to separate answers as needed.)

B. The solution set is th

You answered: 6

Score: 1 of 1 pt | 30 of 32 | Next Question | **Test Score:** 96.88%, 31 of 32 pts

4.4.17

Solve the logarithmic equation.

$\log_2 x = -2$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

A. The solution set is $\left\{\frac{1}{4}\right\}$.
(Simplify your answer. Type an integer or a fraction.)

B. The equation has no solution. The solution set is empty, ∅.

Score: 1 of 1 pt | 31 of 32 | **Test Score:** 96.88%, 31 of 32 pts

Next Question

4.4.55

Solve the logarithmic equation.

$\log\left(x^2+x-5\right)=0$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

- A. The solution set is $\{-3,2\}$. (Use a comma to separate answers as needed.)
- B. The solution set is the empty set.

Score: 1 of 1 pt | 32 of 32 | **Test Score:** 96.88%, 31 of 32 pts

4.4.57

Solve the following logarithmic equation.

$\log_4\left(x^2-9x+22\right)=1$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

- A. The solution is the empty set.
- B. The solution set is $\{3,6\}$.
  (Use a comma to separate answers as needed. Type an integer or a simplified fraction.)