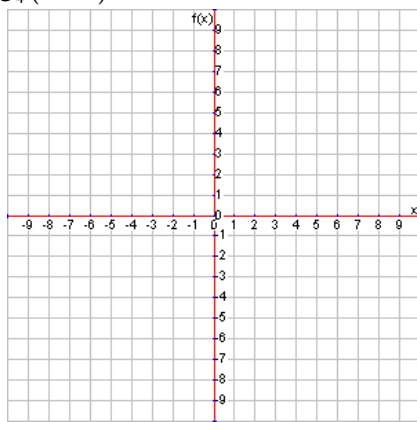


Quiz 5 Notes

Graph: $f(x) = -2\log_4(x-3) + 1$

x	$f(x)$



Asymptote:

Domain:

Solve: $f(x) = -1$

$f(19) =$

Quiz 6 Notes

Solve: $2(e)^{x-2} = 20$

How much of an initial investment would you need for it to be worth at least \$4500, if it is compounded yearly at 7% over 11 years? Create an inequality, but do not solve it, that could be used to find the initial investment.

There are 5000 fish in a pond and their population is decreasing at a continuous rate of 15%. Create an inequality, but do not solve it, that could be used to find how long it will take until there are at most 30 fish left.

Quiz 5 Practice A	Quiz 5 Practice B	Quiz 5 Practice C	Quiz 5 Practice D
Graph: $f(x) = 3\log_5(x+7) - 2$	Graph: $f(x) = -\log_6(x+3) + 5$	Graph: $f(x) = 4\log_3(x-2) - 6$	Graph: $f(x) = -2\log_4(x+1) + 5$
x $f(x)$	x $f(x)$	x $f(x)$	x $f(x)$
Asymptote:	Asymptote:	Asymptote:	Asymptote:
Domain:	Domain:	Domain:	Domain:
Solve: $f(x) = 1$	Solve: $f(x) = 5$	Solve: $f(x) = -2$	Solve: $f(x) = 3$
$f(18) =$	$f(33) =$	$f(29) =$	$f(63) =$

Quiz 6 Practice A	Quiz 6 Practice B	Quiz 6 Practice C
Solve: $4(5)^{3x} = 12$	Solve: $8(e)^{x-6} = 32$	Solve: $3(7)^{2x} + 2 = 32$
How many years would it take for a \$5000 initial investment to be worth at most \$1000, if it decreases by 2% each year? Create an inequality, but do not solve it, that could be used to find how long.	The number of people in a room is increasing at a continuous rate of 15%. Create an inequality, but do not solve it, that could be used to find out how many people started off in the room if after six hours there are at least 80 people in the room.	There are 500 bacteria decreasing daily at a rate of 6%. Create an equation, but do not solve it, that could be used to find out how long it would take for there to be 10 bacteria left.
Bacteria are increasing daily at a continuous rate of 3%. Create an equation, but do not solve it, that could be used to find out how many bacteria there were to start with if after 10 days there are 2000 bacteria.	Your \$800 investment has decreased by 7% each year. Create an equation, but do not solve it, that could be used to find how much your investment will be worth in 5 years	There are 6 people in a room and the number of people is increasing at a continuous rate of 4%. Create an inequality, but do not solve it, that could be used to find how long it will take until there are at least 30 people.

Quiz 5 Practice Answers – Check graphs with Desmos	Quiz 6 Practice Answers
A $(-6, -2), (-2, 1), x = -7, x > -7, x = -2, f(18) = 4$	A $x = \frac{\log_5 3}{3}, 5000(0.98)^t \leq 1000, 2000 = Pe^{(0.03)(10)}$
B $(-2, 5), (3, 4), x = -3, x > -3, x = -2, f(33) = 3$	B $x = 6 + \ln 4, Pe^{0.15(6)} \geq 80, A = 800(0.93)^5$
C $(3, -6), (5, -2), x = 2, x > 2, x = 5, f(29) = 6$	C $x = \frac{3 + \log_7 10}{2}, 500(0.94)^t = 10, 6e^{(0.04)t} \geq 30$
D $(0, 5), (3, 3), x = -1, x > -1, x = 3, f(63) = -1$	