1. 

Domain: (0, $\infty $) Range: (0, $\infty $)

1. $x=30.6 and x=-32.6$
2. No Solution



1.

 Domain: All Real Range: y>0

 $x$-int: None $y$-int: (0, 0.736)

1. Domain: $h\geq 0$

 Range: $0<P\leq 101.3$

1. 

Domain: All Real Range: $y>0$

 $y$-intercept: $(0,1)$

What family of functions is this? Exponential

What is the maximum value over the domain $-2\leq x\leq 2$? 4

1. $f\left(x\right)=4(2)^{x}$



$f\left(x\right)=4(2)^{x-3}$



$f\left(x\right)=(-3)(2)^{x}+1$



1. Decay, percent change = 67%

 Growth, percent change = 75%

 Decay, percent change = 20%

1. Growth: $b>1$

 Decay: $0<b<1$

1. $P=250\left(1-.03\right)^{x}$

 $P=215$

1. $T=12,000\left(.75\right)^{n}$
2. $A=amount after t years$

 $P=principal or initial amount$

 $r=annual percentage rate$

 $t=time in years$

1. $\$4788.87$
2. $\left(\frac{5}{2},177147\right)$
3. $x=9.3$
4. $e^{3.9}=50$

$ 2^{-3}=\frac{1}{8}$

$ a^{x}=b$

1. $y=log\_{2}64$
2. $x=-.333$
3. $x=128$

 $x=4.561$

1. $0.967 grams$
2. Logarithmic Function

 $f(x)=log\_{b}x$

1. 

 Domain: ($3,\infty $) Range: ($-\infty ,\infty )$

1. 

Domain: (-1, $\infty $) Range: ($-\infty ,\infty )$

1. 

$f\left(x\right)=lnx$

 Domain: (0, $\infty $)

 Range: ($-\infty ,\infty )$

 y-int: None

 x-int: (1,0)

$f\left(x\right)=e^{x}$

 Domain: ($-\infty ,\infty )$

 Range: (0, $\infty $)

 y-int: (1,0)

 x-int: None

1. $sinθ=\frac{\sqrt{3}}{2}$
2. $170°$

$-190°$

$\frac{5π}{4}$

$\frac{-3π}{4}$

1. Amplitude = 50

Period = $\frac{2π}{3}$

Vertical translation = Up 1

1. Domain = all reals

Range $-0.001\leq θ\leq 0.001$

1. $\frac{8}{17}$
2. $\frac{2π}{3} $radians
3. Domain: all real numbers

Range: $-4\leq y\leq 6$

Period: $π$

Amplitude: 5

$$y=5\sin(\left(2x\right))+1$$

1. $\frac{-\sqrt{3}}{2}, \frac{\sqrt{3}}{2}, 1$
2. .1517
3. $\frac{1}{4}, \frac{1}{6}$
4. $\frac{3}{5}$
5. $\frac{7}{10}, \frac{1}{10}, \frac{9}{10}, \frac{4}{5}, \frac{3}{7}$
6. Arithmetic sequence.

$$a\_{1}=8, a\_{n}=a\_{n-1}+4$$

$$a\_{n}=4n+4$$

$$204$$

260

1. Geometric sequence.

$$a\_{1}=-1, a\_{n}=-3a\_{n-1}$$

$a\_{n}=-1(-3)^{n-1}$

$1,594,323$

$-4921$

1. $a\_{n}=-2n+10$
2. The 9th summer