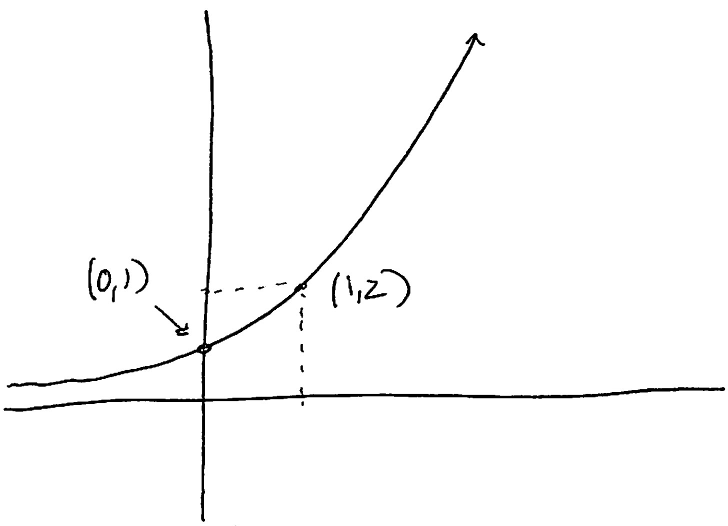
1. $y = f(x)$, $f(x) = 2^x$

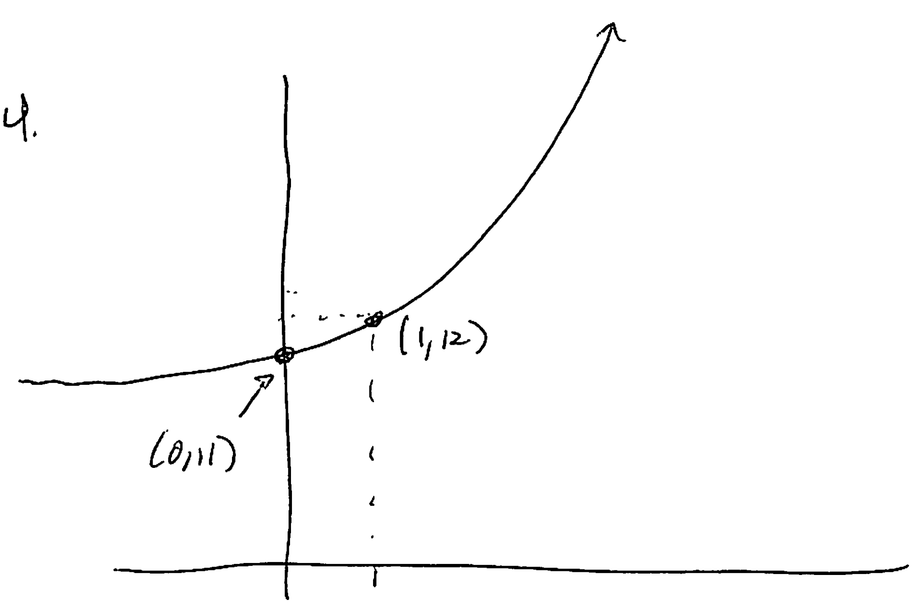


2. the y-intercept is computed by plugging in $x=0$. $2^0 = 1$.

Solution: $(0,1)$

3. Taking larger and larger powers of ~~two~~ 2 yields larger and larger numbers. For example 2^{n+1} is twice as large as 2^n, where $n = 1, 2, 3, \ldots$

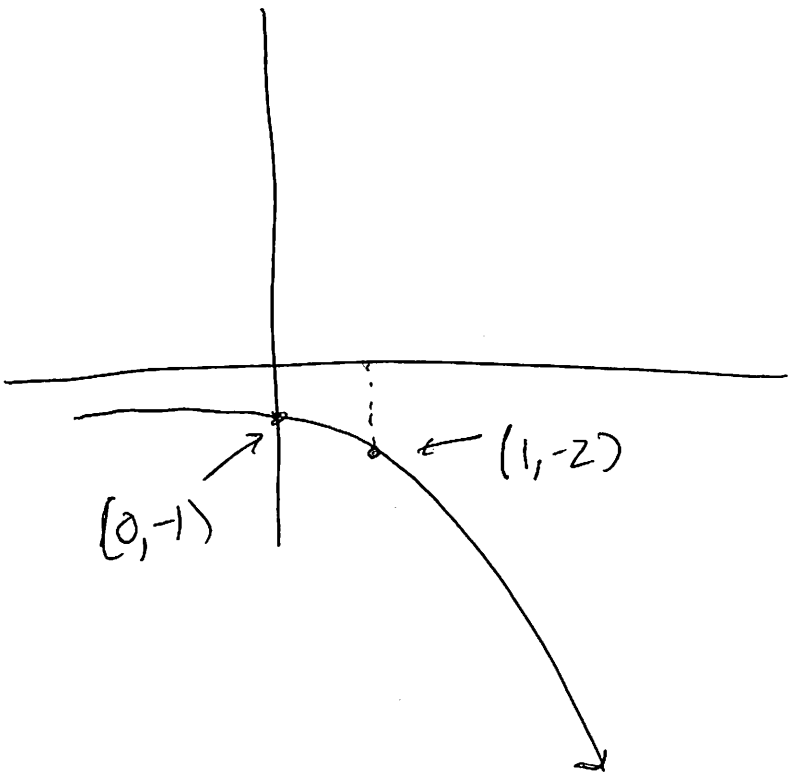
4.



5. $y = 10 + f(0)$
$= 10 + 1$
$= 11$

$\boxed{\text{Solution } (0,11)}$

6.



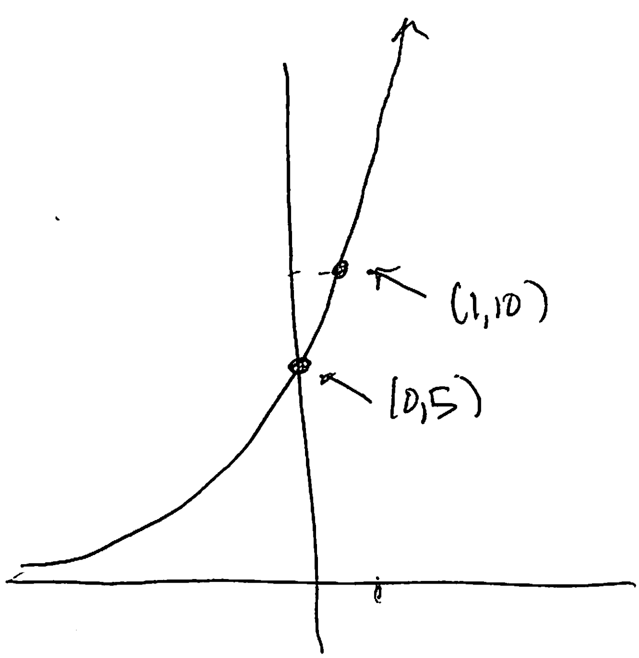
7.

$y = -f(0)$

$= -1$

solution $(0,-1)$

8.



9.

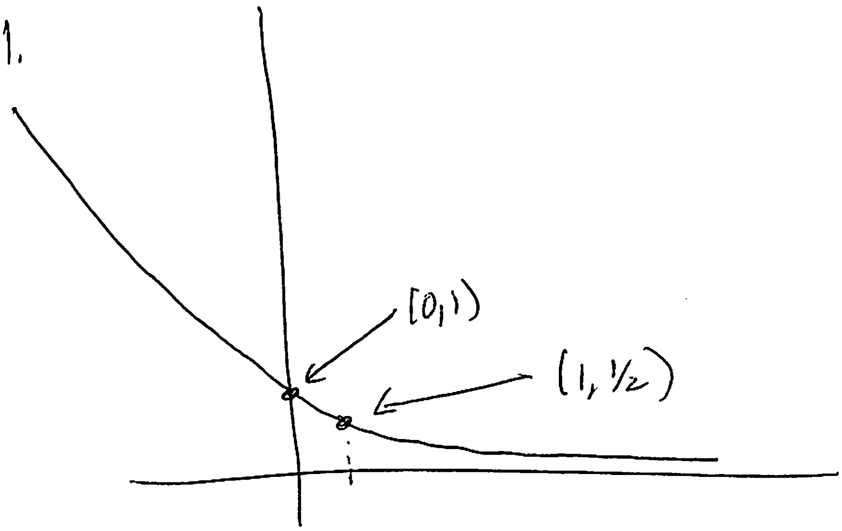
$y = 5 \cdot f(0)$

$y = 5$

Solution: $(0,5)$

, $y = g(x)$, $g(x) = \left(\frac{1}{2}\right)^x$

1.

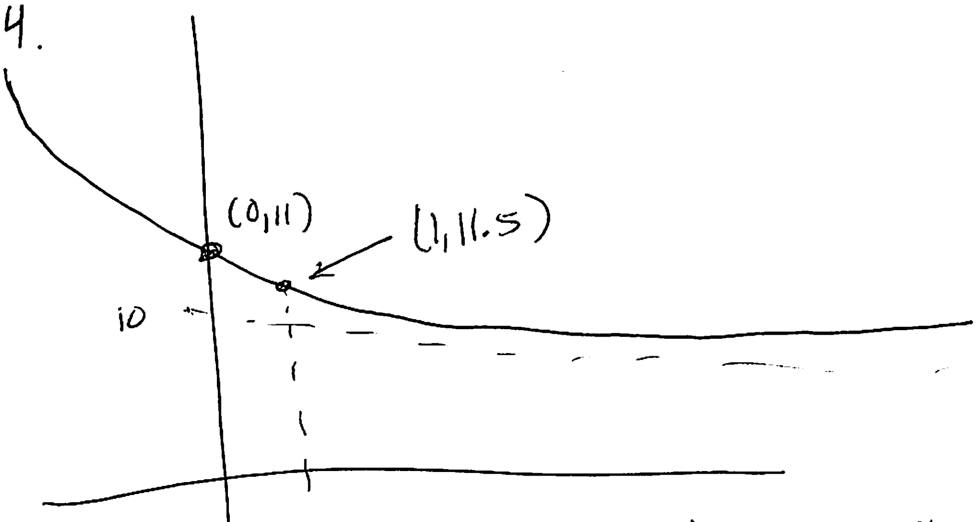


2. $g(0) = 1$

solution: $(0, 1/2)$

3. Taking larger powers of $\frac{1}{2}$ we get $\frac{1}{2^n}$.
We know that 2^n gets larger and larger as n gets larger. One divided by larger and larger numbers approaches 0.

4.

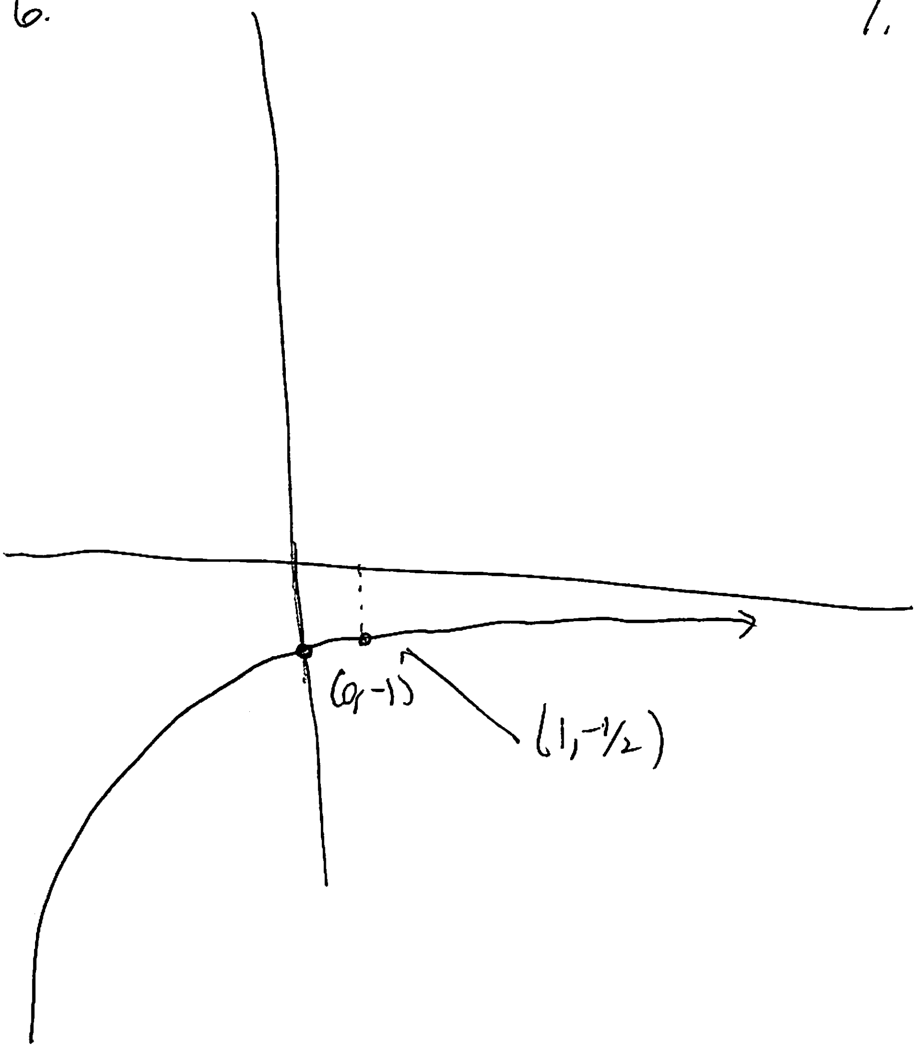


5. $y = 10 + g(0)$
$= 10 + 1$
$= 11$

$(0, 11)$

(Note: graph "approaches" or "limits to" or "is asymptotic" to the line $y = 10$)

6.



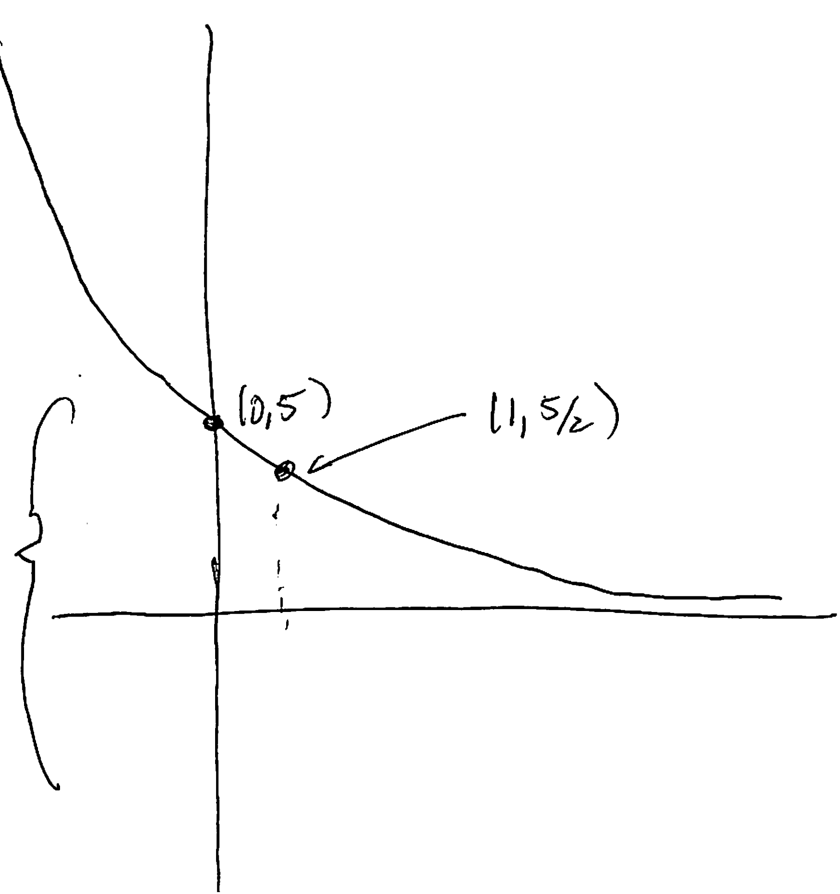
7.

$y = -g(0)$

$= -1$

$\underline{\underline{(0,-1)}}$

8.



my scale isn't great here. Sorry!

9.

$y = 5 \cdot g(0)$

$= 5 \cdot 1$

$= 5$

$\underline{\underline{(0,5)}}$