

- One-To-One Functions

- A function f is *one-to-one* if different inputs have different outputs. That is, if for a and b in the domain of f with $a \neq b$, we have $f(a) \neq f(b)$, then the function f is one-to-one. If a function is one-to-one, then its inverse correspondence is also a function.

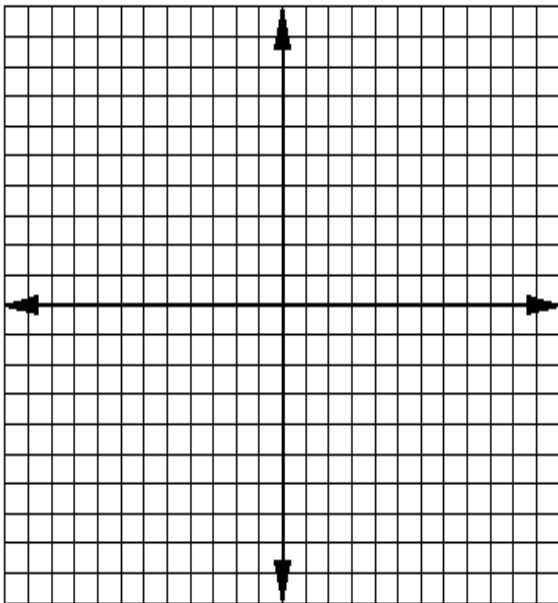
- Exponential Functions:

- $y = b^x$
 - b is some constant, $b \neq 1$ or 0 and x is any real number

- Examples:

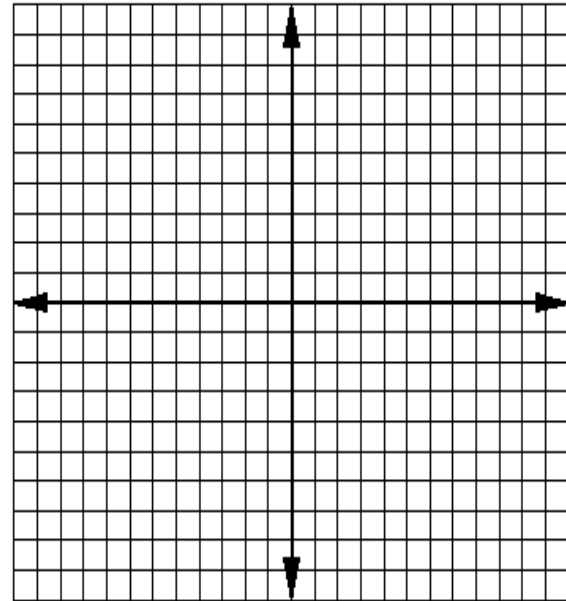
1. $f(x) = 2^{x-3}$

x	f(x)



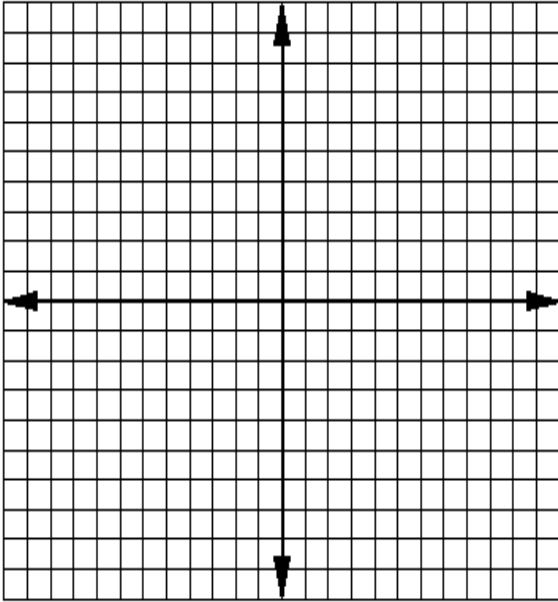
2. $f(x) = \left(\frac{1}{2}\right)^{x+3}$

x	f(x)



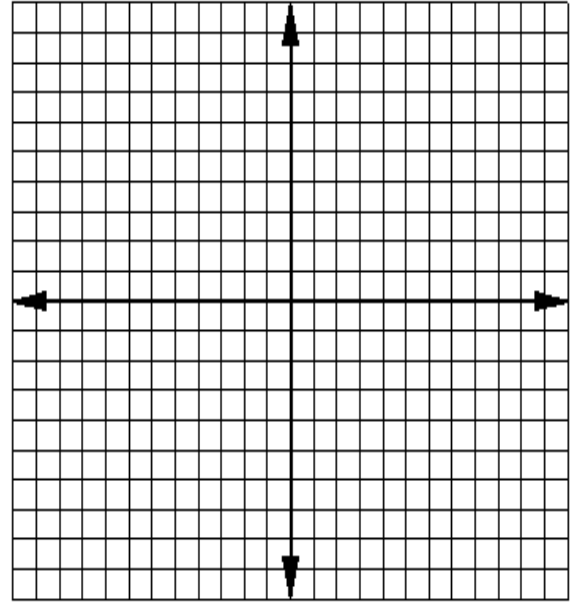
3. $f(x) = 3^x + 2$

x	f(x)



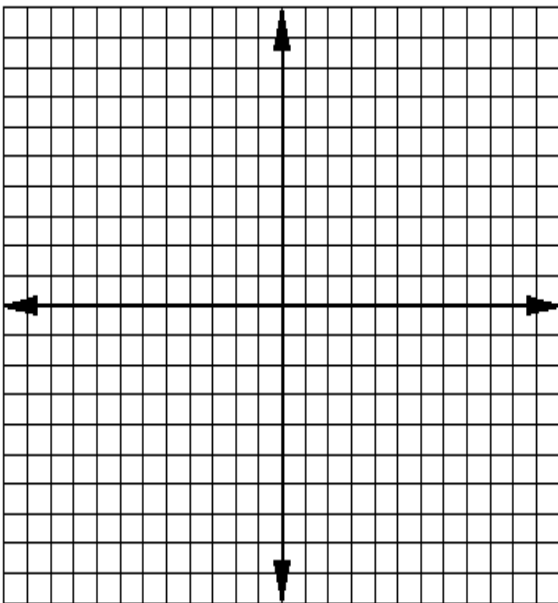
x	f(x)

4. $f(x) = (3)^{\frac{1}{2}x} - 1$



5. $y = e^{\frac{1}{2}x+1}$

x	y



x	y

6. $y = e^{x-1} + 2$

