**Chapter 1 (part b) Practice Test**

1. Given the graph of the function y=f(x), sketch the graph of each transformed function.
2. y-3=f(x)
3. h(x)=f(x+1)
4. y+1=f(x-2)
5. Describe how to translate the graph of y=│x│ to obtain the graph of the function shown. Write the equation of the transformed function in the form y-k=│x-h│.



1. The range of the function y=f(X) is {y│-2<y<5, y € R}. What is the range of the function y=f(x-2)+4?
2. James wants to explain vertical and horizontal translations by describing the effect of the translation on the coordinates of a point on the graph of a function. He says, “If the point (a,b) is on the graph of y=f(x), then the point (a-5,b+4) is the image point on the graph of y+4=f(x-5).” Do you agree with James? Explain your reasoning.
3. Name the line of reflection when the graph of y=f(x) is transformed as indicated then state the coordinates of the image point of (3,5) on the graph of each reflection.
4. y=-f(x)
5. y=f(-x)
6. Copy each graph of y=f(x) then,
	* Sketch the reflection indicated
	* state the domain and range of the transformed function
	* List any invariant points
7. y=f(-x) b) y=-f(x)



1. a) Sketch the graphs of the functions f(x)=x2, g(x)=f(2x) and h(x)=f(1/2x) on the same set of coordinate axes.

b) Describe how the value of the coefficient of x for g(x) and h(x) affects the graph of the function f(x)=x2.

1. Consider the graphs of functions f(x) and g(x).
2. Is the graph of g(x) a horizontal or vertical stretch of the graph of f(x)? Explain your reasoning.
3. Write the equation that models the graph of g(x) as a transformation of the graph of f(x).
4. Given the graph of y=f(x) sketch the graph of each transformed function
5. y=2f(1/2x)
6. y=1/2f(3x)
7. Explain how the transformations described by y=f(4(x+1)) and y=f(4x+1) are similar and how they are different.
8. Write the equation for the graph of g(x) as a transformation of the equation for the graph of f(x).



1. Consider the graph for y=f(x). Sketch the graph of each transformation.
2. y=1/2f(-(x+2))
3. y-2=-f(2(x-3))
4. y-1=3f(2x+4)