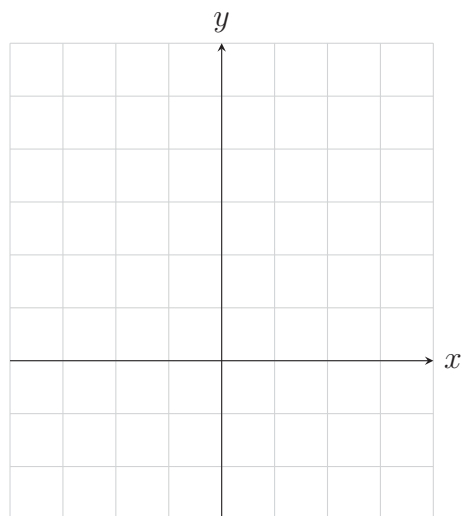


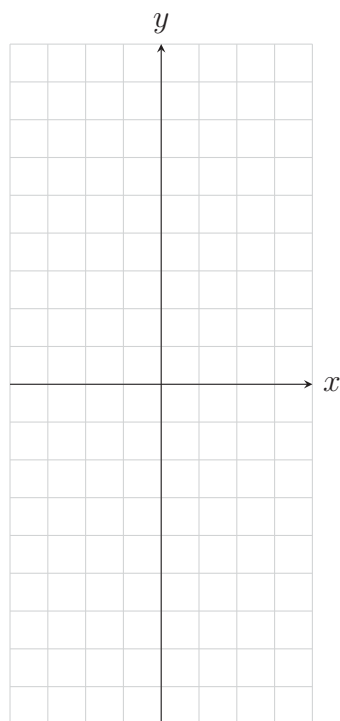
Math 111 WS 3, Function Transformation Introduction

Name: \_\_\_\_\_

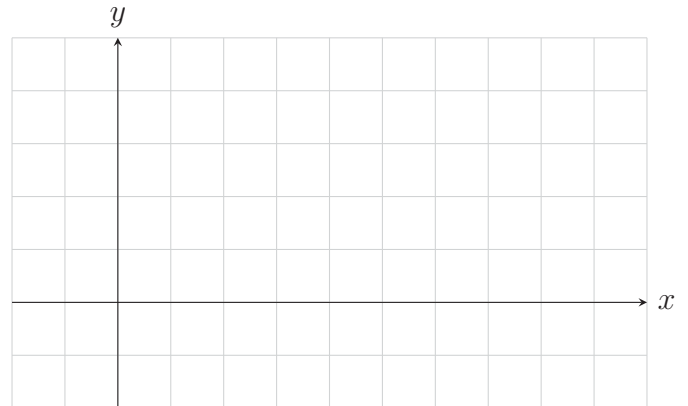
1. Compare the function  $y = \text{sqr}(x)$  to the function  $f(x) = \frac{1}{2}x^2$  via a table and a graph and then state in words what is occurring.

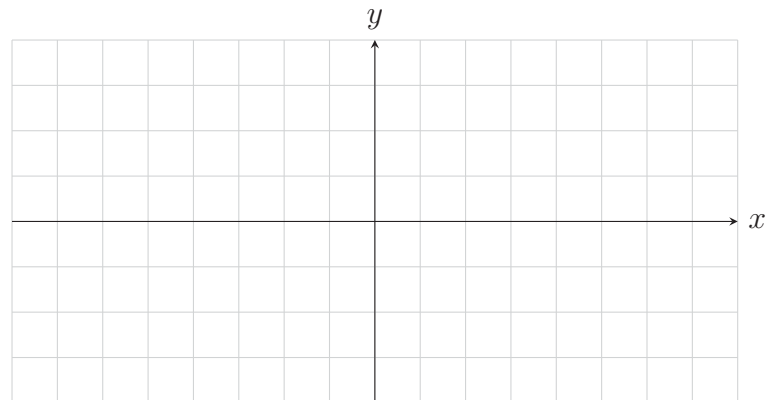
2. Compare the function  $y = \text{cube}(x)$  to the function  $g(x) = x^3 + 3$  via a table and a graph and then state in words what is occurring.

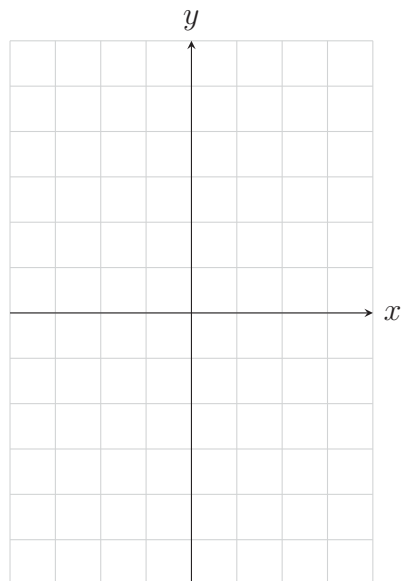
3. Compare the function  $y = \text{sqrt}(x)$  to the function  $\text{sqrtr2}(x) = \sqrt{x-2}$  via a table and a graph and then state in words what is occurring.

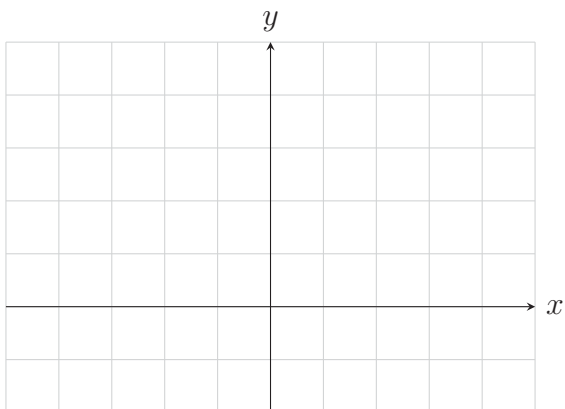
4. Compare the function  $y = \text{cubert}(x)$  to the function  $\text{cubertc3}(x) = \sqrt[3]{3x}$  via a table and a graph and then state in words what is occurring.

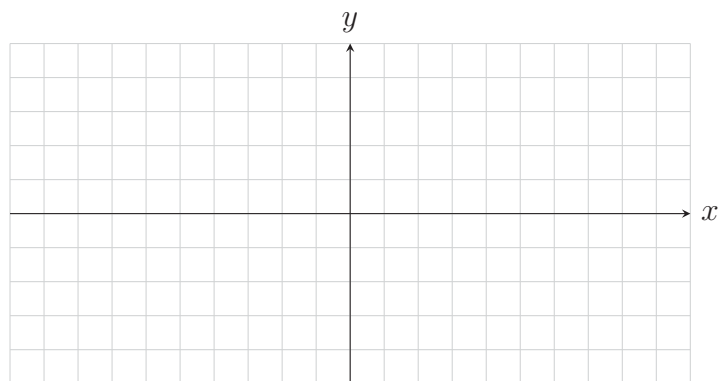
5. Compare the function  $y = rat(x)$  to the function  $h(x) = \frac{2}{x}$  via a table and a graph and then state in words what is occurring.

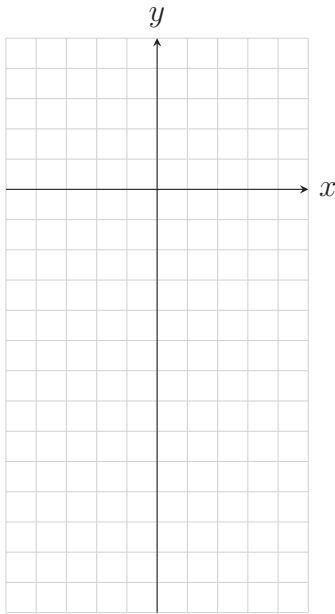
6. Compare the function  $y = sqr(x)$  to the function  $sqrxt1/3(x) = \left(\frac{1}{3}x\right)^2$  via a graph and then state in words what is occurring.



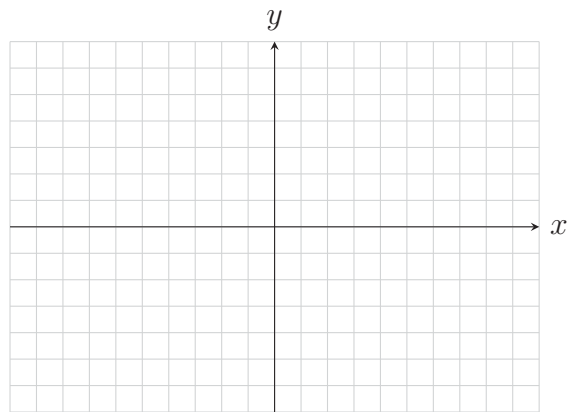
7. Compare the function  $y = cubert(x)$  to the function  $cubertt3(x) = 3\sqrt[3]{x}$  via a graph and then state in words what is occurring.



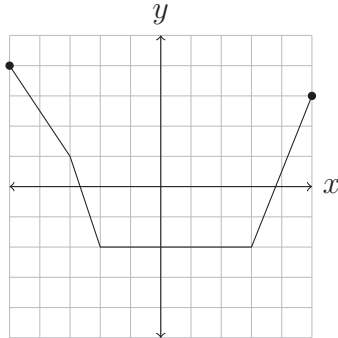
8. Compare the function  $y = \text{cube}(x)$  to the function  $\text{cubeym4}(x) = x^3 - 4$  via a graph and then state in words what is occurring.



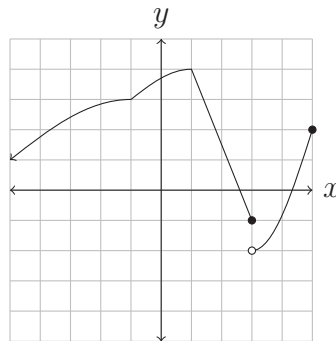
9. Compare the function  $y = \text{rat}(x)$  to the function  $\text{ratxm3}(x) = \frac{1}{x-3}$  via a graph and then state in words what is occurring.



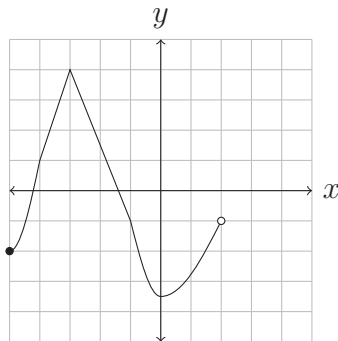
10. Given the following graph of  $y = f(x)$ , draw the graph of  $y = \frac{1}{4}f(x)$ .



12. Given the following graph of  $y = h(x)$ , draw the graph of  $y = h(x) - 3$ .



11. Given the following graph of  $y = g(x)$ , draw the graph of  $y = g(x - 2.5)$ .



13. Given the following graph of  $y = j(x)$ , draw the graph of  $y = j\left(\frac{2}{3}x\right)$ .

