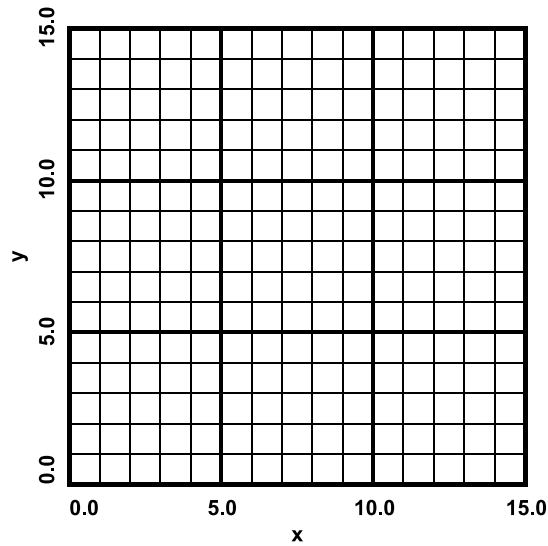


PRE-AP ALGEBRA 2

2A.5 CLASSWORK

1) For  $y = f(x) = \frac{1}{3}x^2 - 6x + 29$ :

- a) Graph  $y = f(x)$  on the axes provided.
- b) Construct a function  $y = g(x)$  by vertically stretching  $y = f(x)$  by a factor of 3.
- c) Graph  $y = g(x)$  on the axes provided.
- d) Construct a function  $y = h(x)$  by translating  $y = g(x)$  by  $(x_0, y_0) = (-6, -2)$ .
- e) Graph  $y = h(x)$  on the axes provided.



- 2) The transformation in problem 1 of taking  $y = f(x)$  to  $y = h(x)$  is equivalent to:
- a) Construct a function  $y = k(x)$  by translating  $y = f(x)$  by  $(x_0, y_0) = (-6, -\frac{2}{3})$ .
  - b) Graph  $y = k(x)$  on the axes of problem 1.
  - c) Construct  $y = h(x)$  from problem 1 by vertically stretching  $y = k(x)$  by a factor of 3.