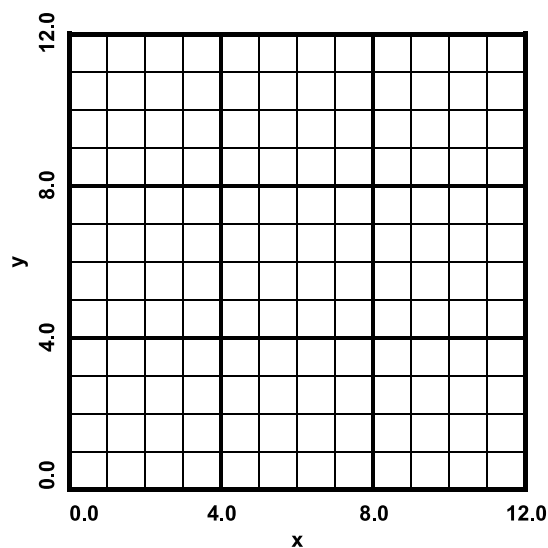


1) For $y = f(x) = \frac{1}{4}x^2 - 3x + 12$:

- a) Graph $y = f(x)$ on the axes provided.
- b) Construct a function $y = g(x)$, which is a horizontal compression, by a factor of $\frac{1}{2}$, of $y = f(x)$.
- c) Graph $y = g(x)$ on the axes provided.
- d) Construct a function $y = h(x)$, which is a translation, by $(1, -2)$, of $y = g(x)$.
- e) Graph $y = h(x)$ on the axes provided.



2) In problem 1, the transformation of $y = f(x)$ to $y = h(x)$ is equivalent to:

- a) Construct a function $y = k(x)$, which is a translation, by $(2, -2)$, of $y = f(x)$.
- b) Graph $y = k(x)$ on the axes in problem 1.
- c) Construct $y = h(x)$ from problem 1 by applying a horizontal compression, by a factor of $\frac{1}{2}$, to $y = k(x)$.