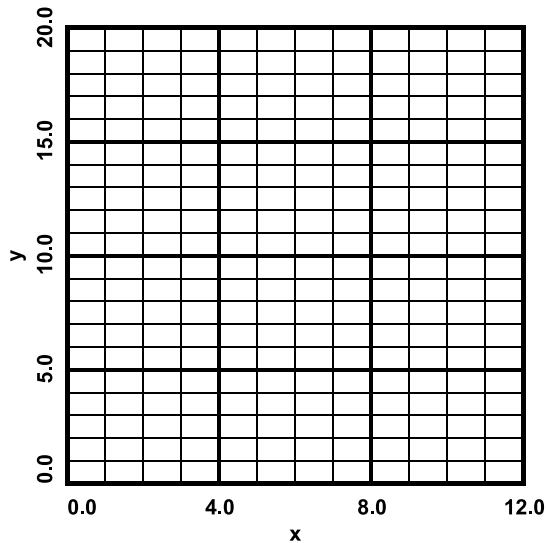


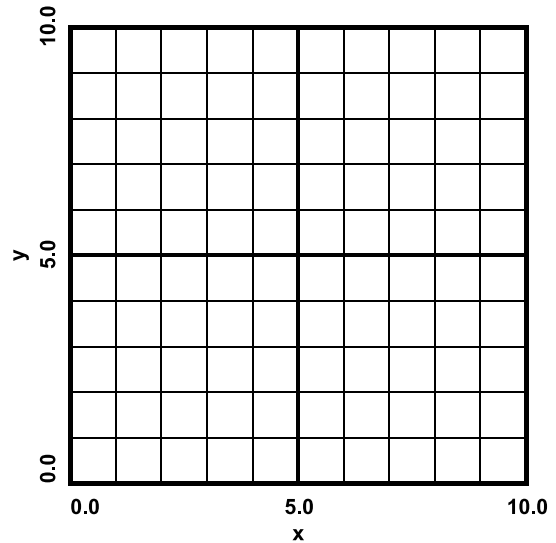
1) Let $y = f(x) = \sqrt{x-2} + 3$.

- Graph $y = f(x)$ on the axes below.
- Construct a function $y = g(x)$ which is a vertical stretch, by a factor of 3, of $y = f(x)$.
- Graph $y = g(x)$.
- Construct a function $y = h(x)$ which is a translation, by $(-1, -8)$, of $y = g(x)$.
- Graph $y = h(x)$.



3) Let $y = f(x) = 5 - \sqrt{17 - 2x}$.

- State the domain and range of $y = f(x)$.
- Graph $y = f(x)$ and $y = x$ on the axes below.
- Calculate $y = f^{-1}(x)$. Remember to state the domain restriction.
- Graph $y = f^{-1}(x)$.



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

- Construct a function $y = k(x)$ which is a translation, by $(-1, -2\frac{2}{3})$, of $y = f(x)$.
- Graph $y = k(x)$ on the grid in problem 1.
- Construct $y = h(x)$ as a vertical stretch, by a factor of 3, of $y = k(x)$.