## **Extra Practice: Function Notation**

- a) Given:  $f(x) = \sqrt{x+1}$ 
  - i) Write the image equation for the transformation: y = f(x-2)+4
  - ii) State the domain and range of each function.
  - iii) Graph both functions on the same grid.
- b) Given:  $f(x) = \sqrt{x} 1$ 
  - i) Write the image equation for the transformation: y = f(x-3)+2
  - ii) State the domain and range of each function.
  - iii) Graph both functions on the same grid.
- c) Given:  $f(x) = \frac{1}{x+1}$ 
  - i) Write the image equation for the transformation: y = f(x+1)
  - ii) State the domain and range of each function.
  - iv) Graph both functions on the same grid.
- d) Given:  $f(x) = \frac{1}{x} + 2$ 
  - i) Write the image equation for the transformation: y = f(x-3)+4
  - ii) State the domain and range of each function.
  - iii) Graph both functions on the same grid.