## 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.

