Graph the function and its inverse on the same set of coordinate axes:

1) $f(x) = x + 1$

2) $f(x) = 3x + 1$

3) $f(x) = 1 - x^2; \quad (x \geq 0)$

4) $g(x) = (x+1)^2; \quad (x \geq -1)$

5) $g(x) = \dfrac{1}{x+2}$

6) $g(x) = \dfrac{1}{x-1}$
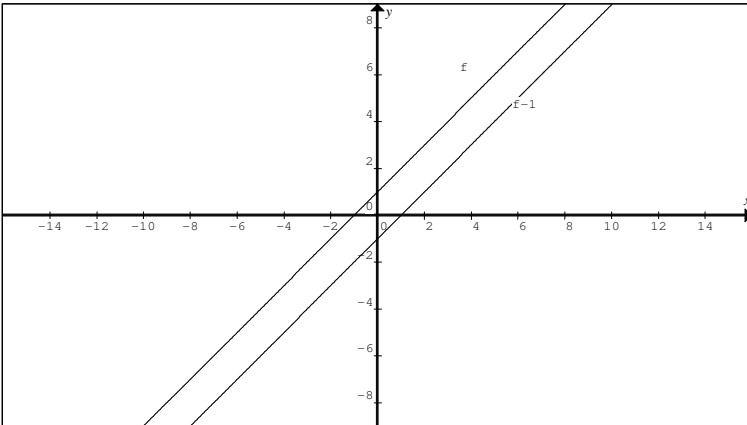
7) $h(x) = |x-1|; \quad (x \geq 1)$

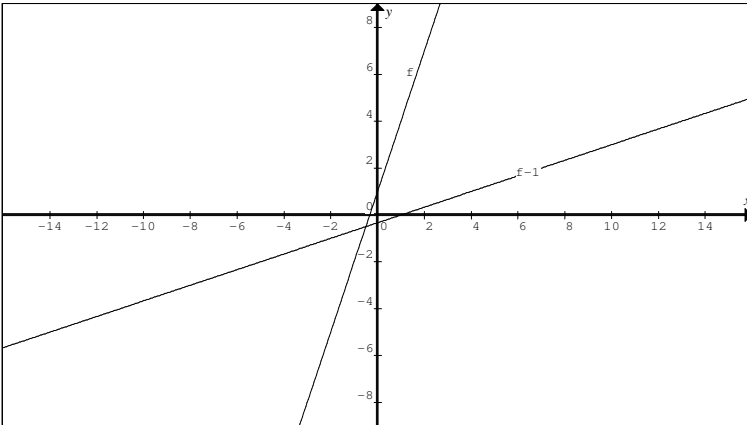8) $h(x) = |x+2|; \quad (x \geq -2)$

9) $h(x) = \dfrac{x}{x-5}$

10) $f(x) = \dfrac{2x-1}{x}$

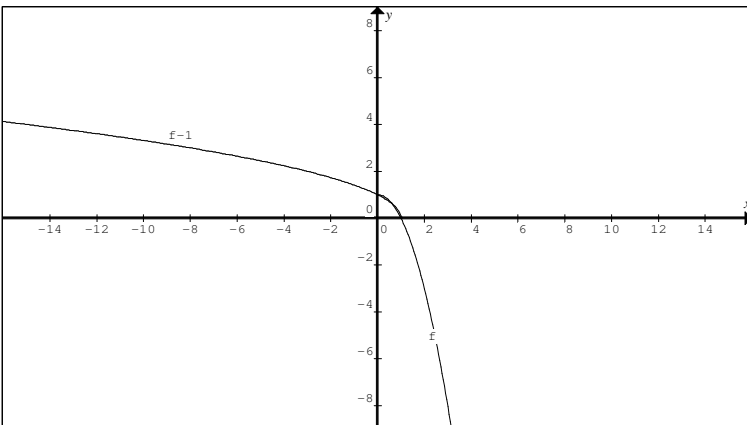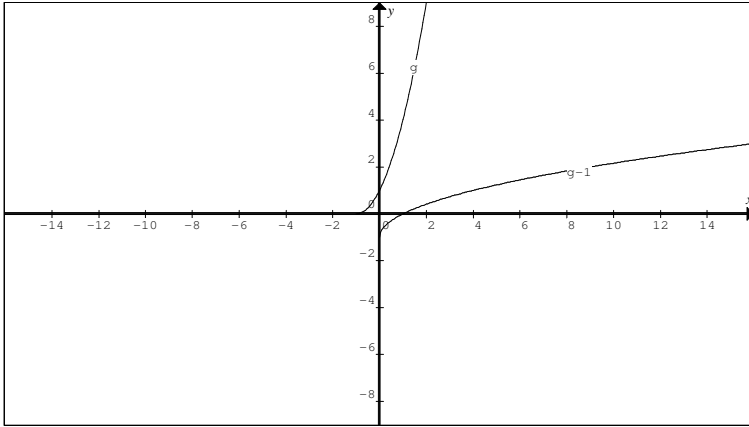# Answers to Graphing the Function and its Inverse on the same Cartesian Palne
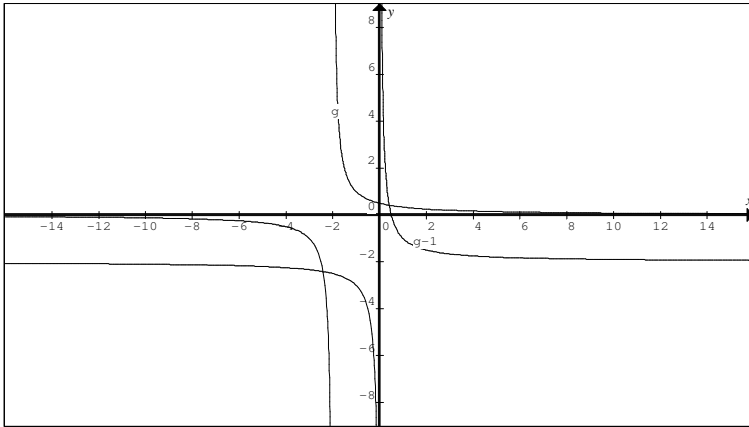
1) $f^{-1}(x)=x-1$

2) $f^{-1}(x)=\dfrac{x-1}{3}$
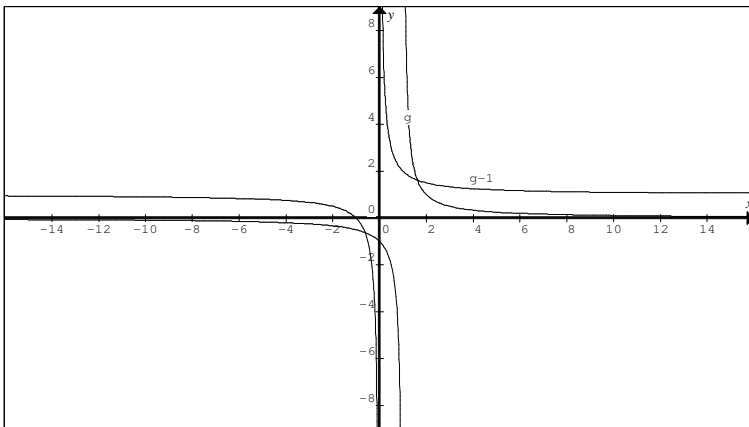
3) $f^{-1}(x)=\sqrt{1-x}; \quad (x\leq 1)$
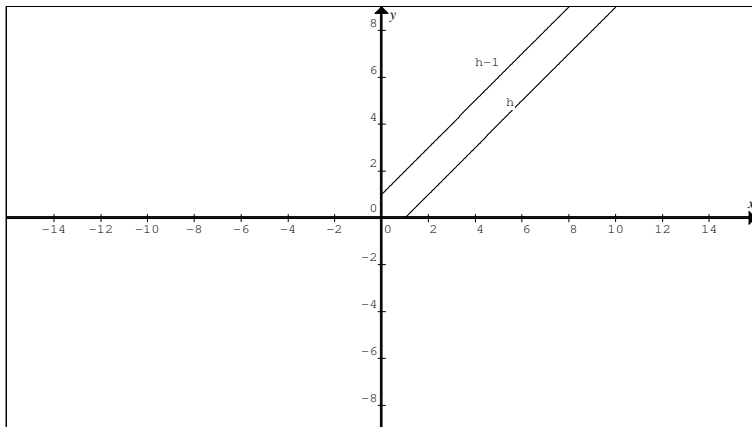
4) $g^{-1}(x)=\sqrt{x}-1; \quad (x>0)$
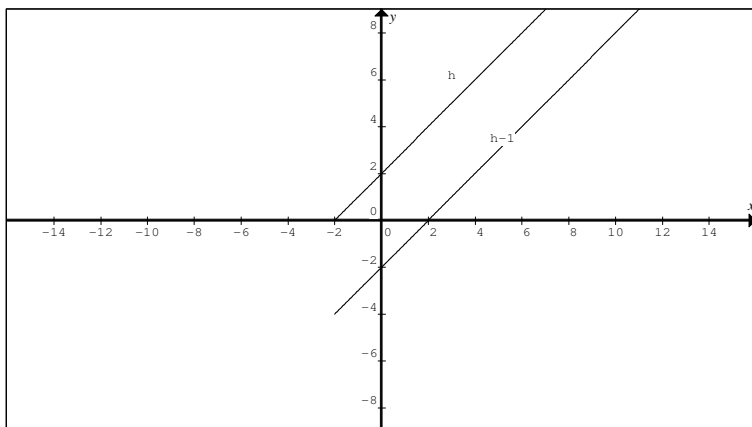
5) $g^{-1}(x)=\dfrac{1-2x}{x}$
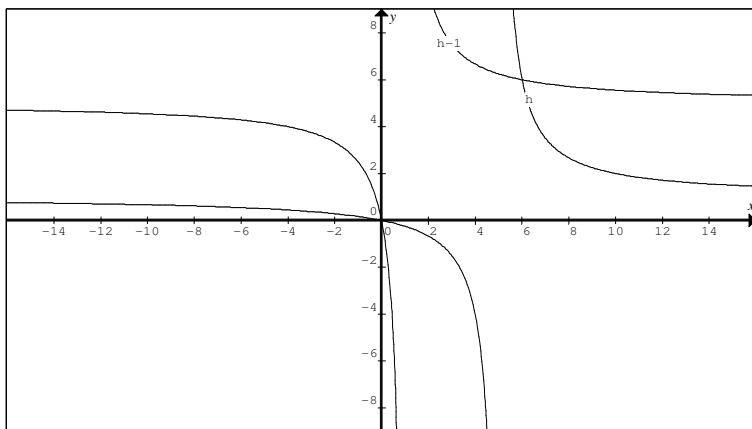
6) $g^{-1}(x)=\dfrac{1+x}{x}$

7) $h^{-1}(x)=x+1; \quad (x \geq 0)$

8) $h^{-1}(x)=x-2; \quad (x \geq -2)$

9) $h^{-1}(x)=\dfrac{5x}{x-1}$

10) $f^{-1}(x) = \dfrac{-1}{x-2}$