

Intermediate Algebra Skill

Graphing the Function and its Inverse on the same Cartesian Plane

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

6) $g(x) = \frac{1}{x - 1}$

7) $h(x) = |x - 1|; \quad (x \geq 1)$

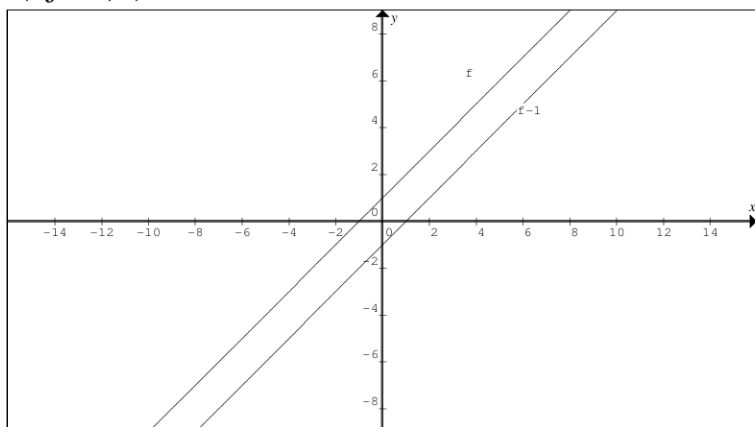
8) $h(x) = |x + 2|; \quad (x \geq -2)$

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

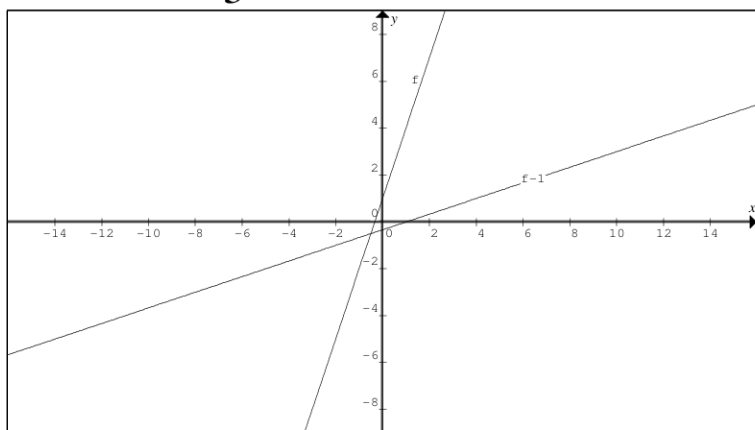
10) $f(x) = \frac{2x - 1}{x}$

Answers to Graphing the Function and its Inverse on the same Cartesian Plane

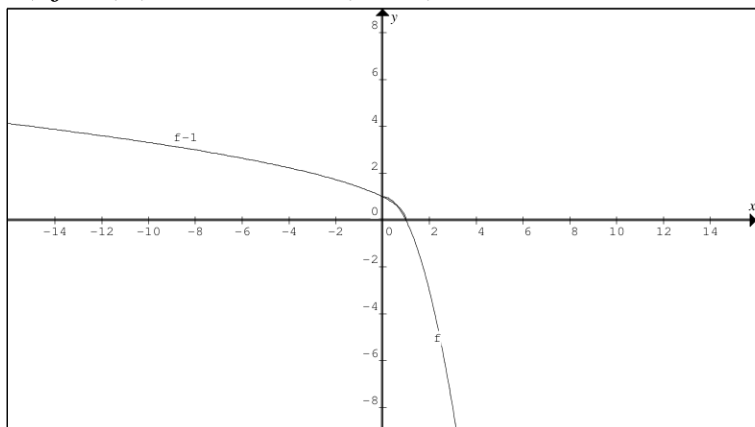
1) $f^{-1}(x) = x - 1$



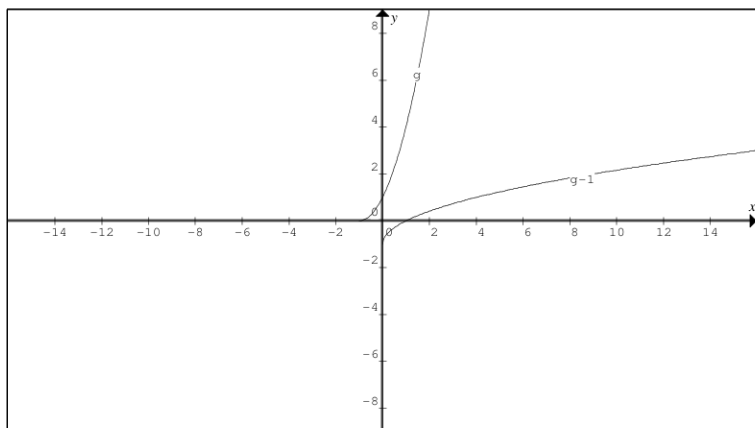
2) $f^{-1}(x) = \frac{x-1}{3}$



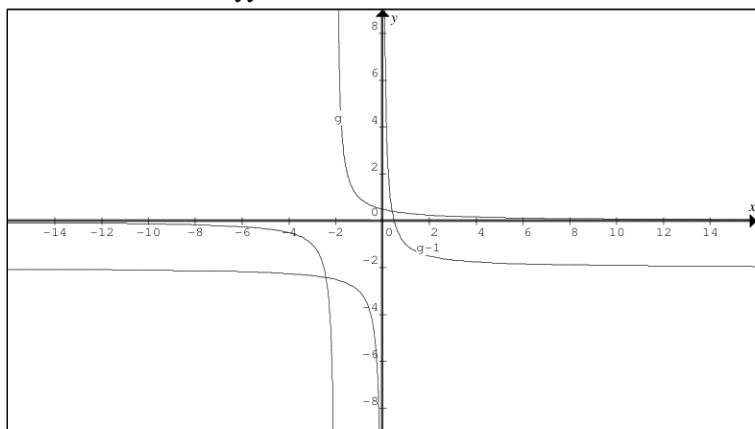
3) $f^{-1}(x) = \sqrt{1-x}; \quad (x \leq 1)$



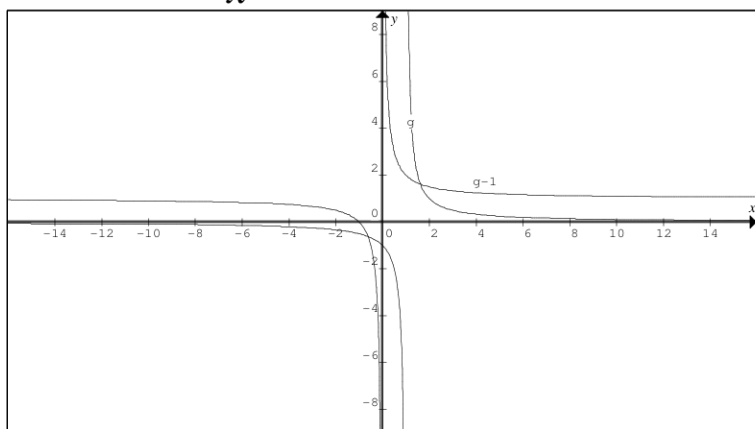
4) $g^{-1}(x) = \sqrt{x} - 1; \quad (x > 0)$



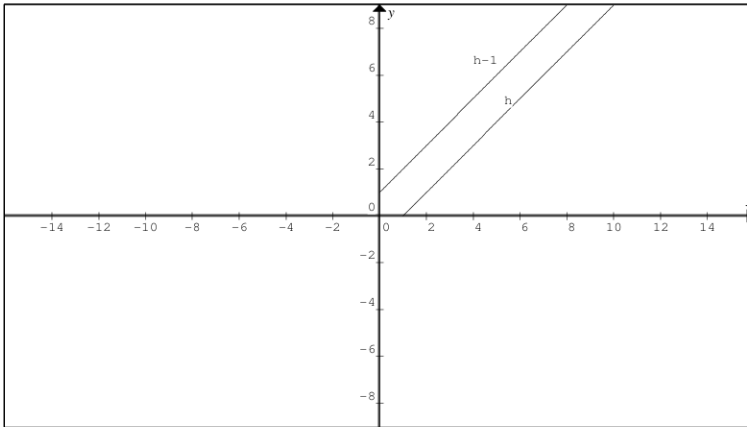
5) $g^{-1}(x) = \frac{1-2x}{x}$



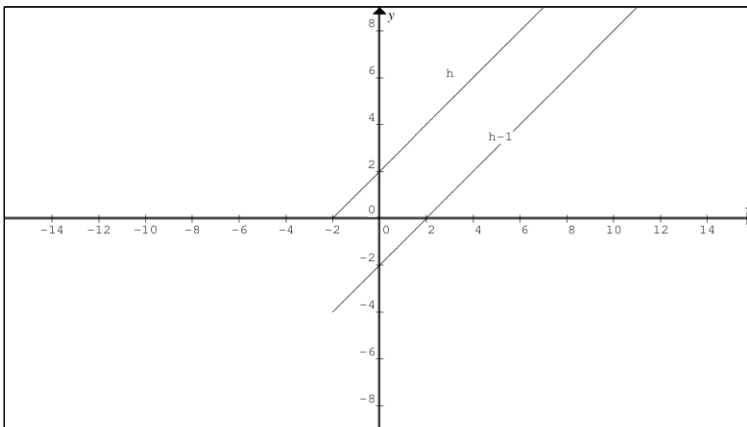
6) $g^{-1}(x) = \frac{1+x}{x}$



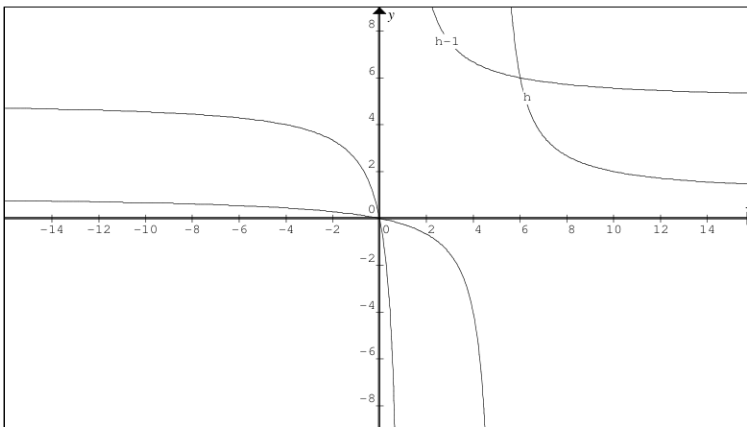
7) $h^{-1}(x)=x+1; \quad (x \geq 0)$



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



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



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

