

Inverse Reciprocal Functions

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Date _____

Find the inverse of each function. Then graph the function and its inverse.

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

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

3) $f(x) = \frac{4}{x-2} + 2$

4) $g(x) = -\frac{2}{x-2} - 2$

5) $g(x) = -\frac{3}{x} + 1$

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

7) $h(x) = \frac{2}{-x+1} - 2$

8) $g(x) = \frac{3}{x} + 3$

9) $f(x) = \frac{3}{x+1}$

10) $g(x) = \frac{1}{-x+3} + 2$

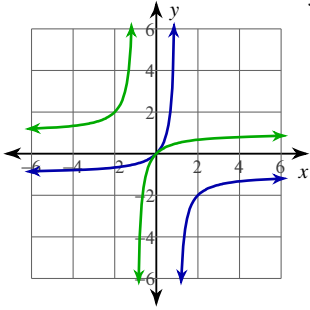
11) $g(x) = \frac{2}{x+1} - 3$

12) $h(x) = \frac{4}{x} + 1$

Answers to Inverse Reciprocal Functions (ID: 1)

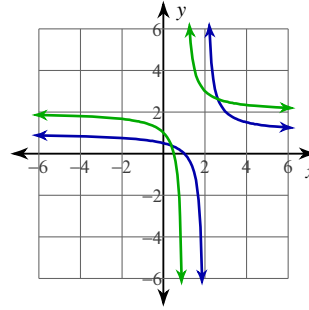
1)

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



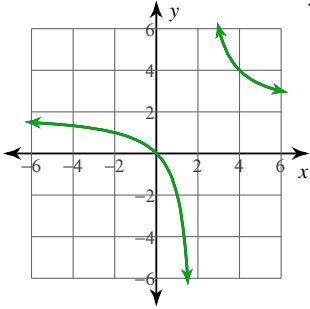
2)

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



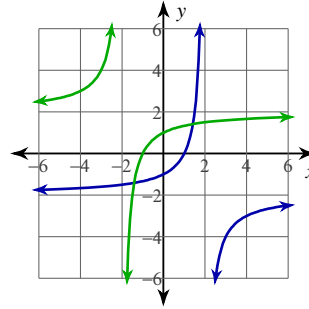
3)

$$f^{-1}(x) = \frac{4}{x-2} + 2$$



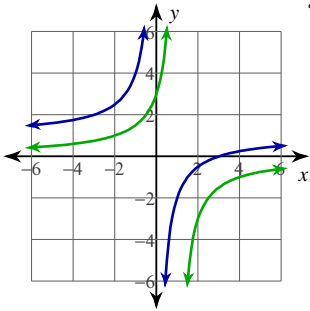
4)

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



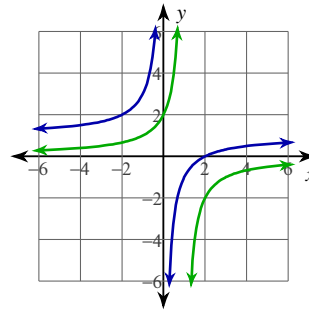
5)

$$g^{-1}(x) = \frac{3}{-x+1}$$



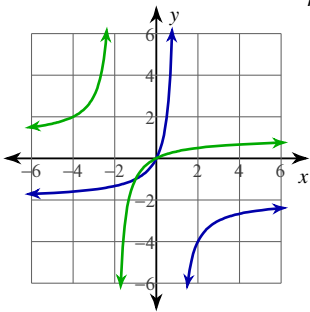
6)

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



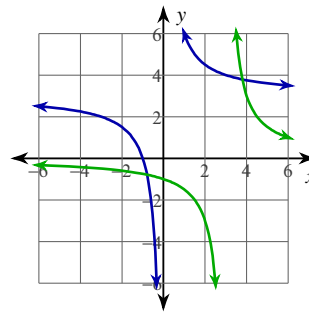
7)

$$h^{-1}(x) = -\frac{2}{x+2} + 1$$



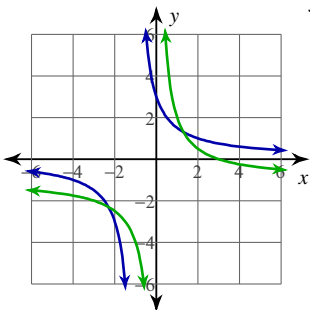
8)

$$g^{-1}(x) = -\frac{3}{-x+3}$$



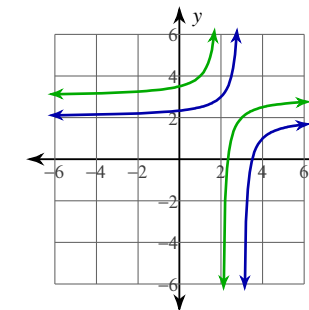
9)

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



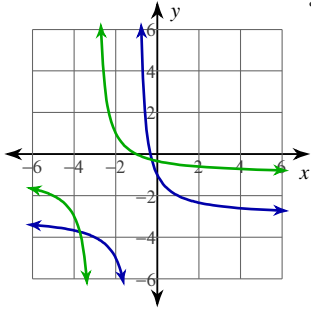
10)

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



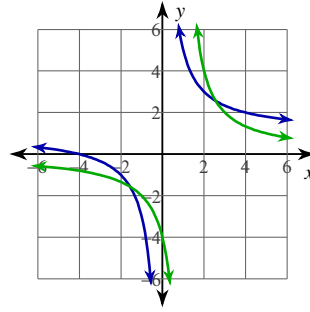
11)

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



12)

$$h^{-1}(x) = \frac{4}{x-1}$$



Inverse Reciprocal Functions

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Find the inverse of each function. Then graph the function and its inverse.

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

2) $g(x) = \frac{3}{x+2} + 2$

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

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

5) $g(x) = \frac{4}{x-2} + 1$

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

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

8) $f(x) = -\frac{2}{x+2} - 2$

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

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

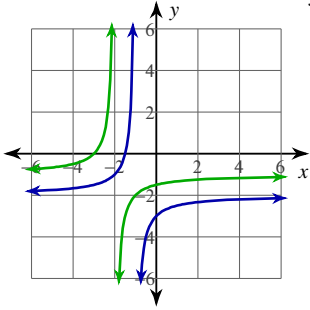
11) $h(x) = \frac{3}{x-1}$

12) $f(x) = \frac{4}{x+3} + 1$

Answers to Inverse Reciprocal Functions (ID: 2)

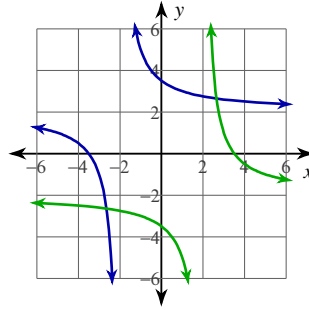
1)

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



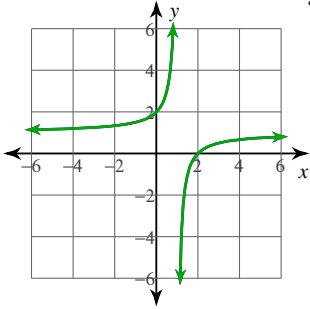
2)

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



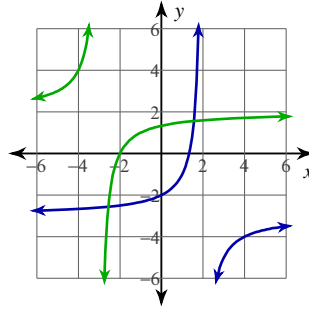
3)

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



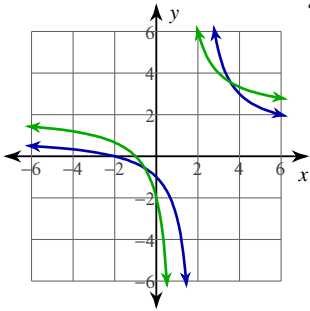
4)

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



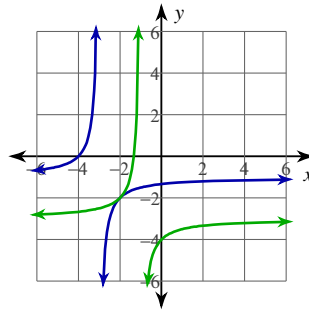
5)

$$g^{-1}(x) = \frac{4}{x-1} + 2$$



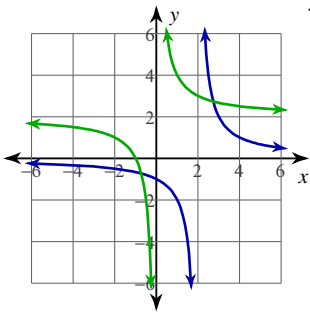
6)

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



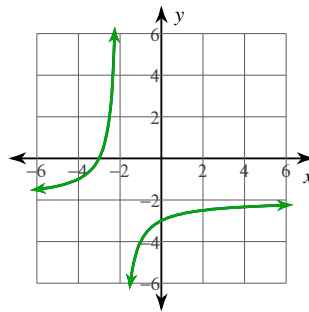
7)

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



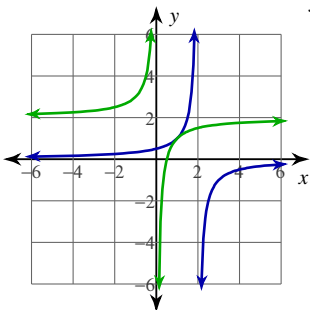
8)

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



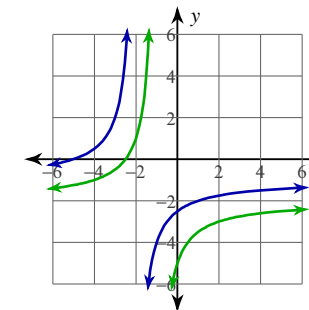
9)

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



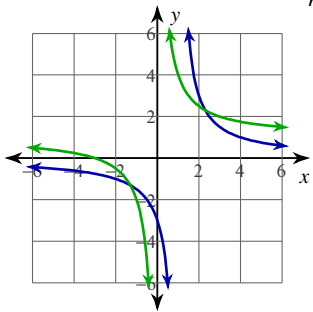
10)

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



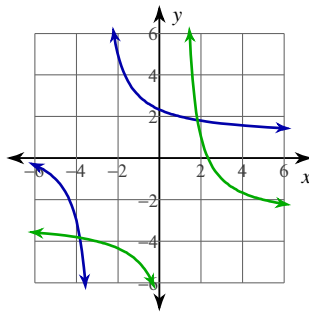
11)

$$h^{-1}(x) = \frac{3}{x} + 1$$



12)

$$f^{-1}(x) = \frac{4}{x-1} - 3$$



Inverse Reciprocal Functions

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Find the inverse of each function. Then graph the function and its inverse.

1) $f(x) = -\frac{4}{x} + 2$

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

3) $f(x) = \frac{3}{x+3} + 2$

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

5) $g(x) = \frac{4}{x} - 1$

6) $f(x) = \frac{3}{-x+1} - 1$

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

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

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

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

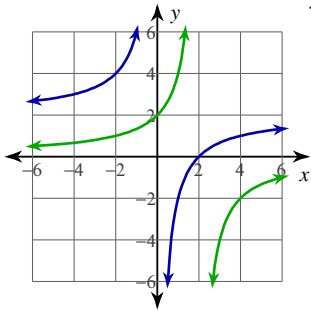
11) $g(x) = -\frac{2}{x-2} - 2$

12) $h(x) = -\frac{4}{x+2} + 2$

Answers to Inverse Reciprocal Functions (ID: 3)

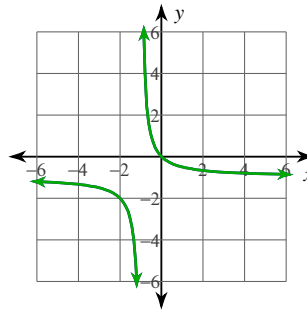
1)

$$f^{-1}(x) = -\frac{4}{x-2}$$



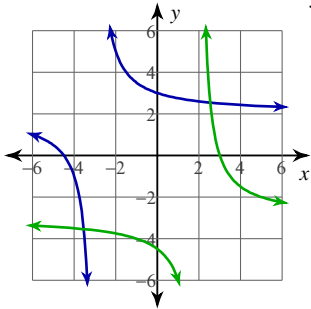
2)

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



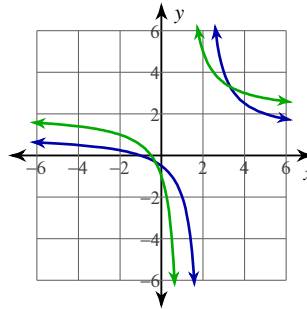
3)

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



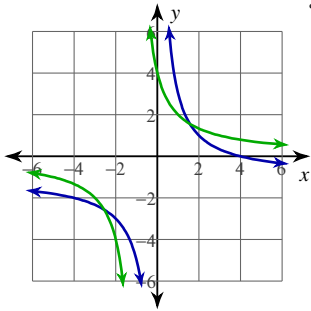
4)

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



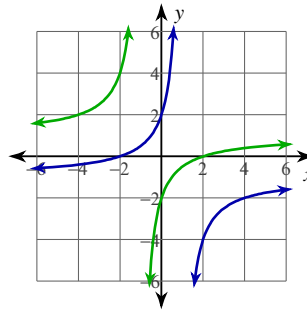
5)

$$g^{-1}(x) = \frac{4}{x+1}$$



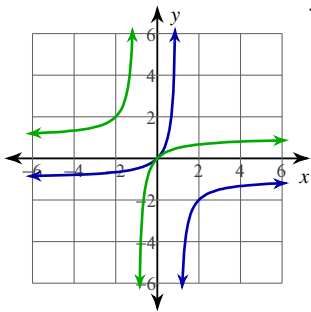
6)

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



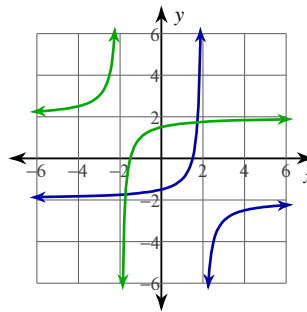
7)

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



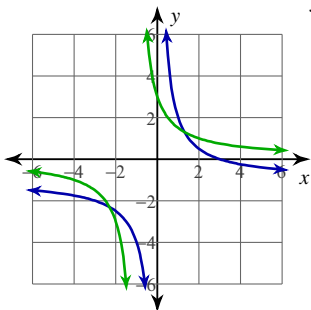
8)

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



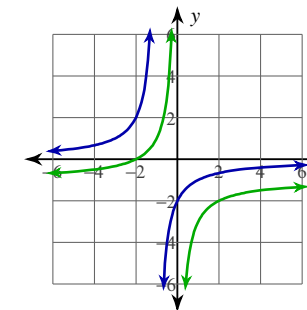
9)

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



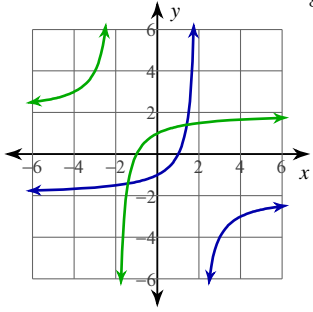
10)

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



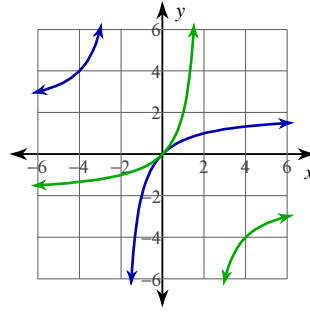
11)

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



12)

$$h^{-1}(x) = -\frac{4}{x-2} - 2$$



Inverse Reciprocal Functions

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Date _____

Find the inverse of each function. Then graph the function and its inverse.

1) $h(x) = \frac{1}{-x-3} - 1$

2) $h(x) = \frac{3}{x+2} - 3$

3) $h(x) = \frac{2}{x-1} + 3$

4) $g(x) = \frac{4}{x+2}$

5) $f(x) = \frac{2}{x+2} - 2$

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

7) $f(x) = \frac{3}{x+2} + 2$

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

9) $h(x) = \frac{2}{-x-2} - 2$

10) $f(x) = \frac{3}{x} + 2$

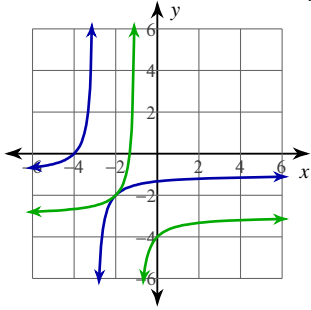
11) $h(x) = -\frac{4}{x-1}$

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

Answers to Inverse Reciprocal Functions (ID: 4)

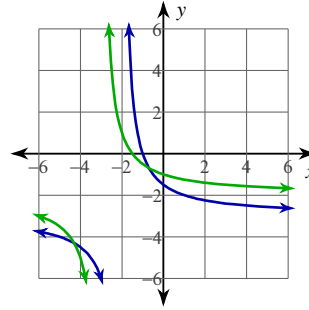
1)

$$h^{-1}(x) = -\frac{1}{x+1} - 3$$



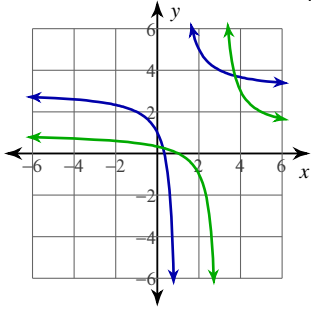
2)

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



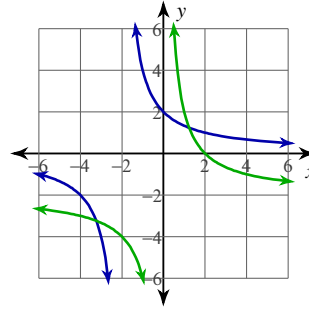
3)

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



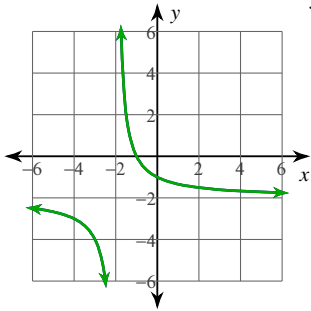
4)

$$g^{-1}(x) = \frac{4}{x} - 2$$



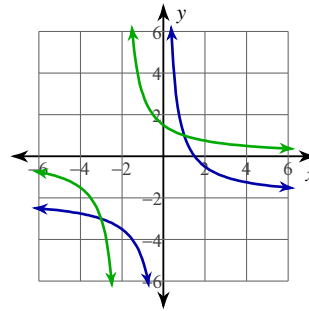
5)

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



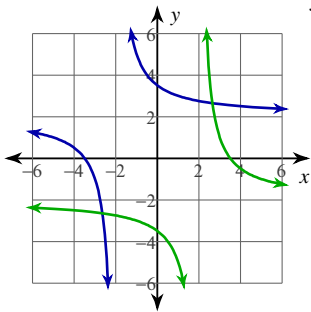
6)

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



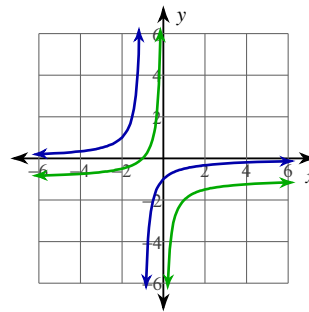
7)

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



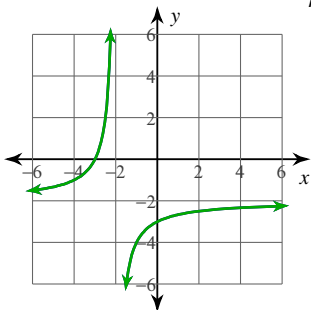
8)

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



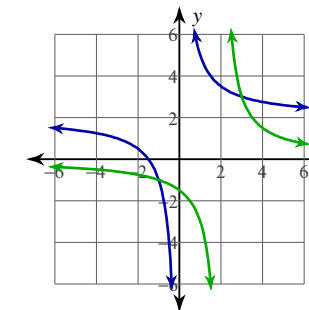
9)

$$h^{-1}(x) = -\frac{2}{x+2} - 2$$



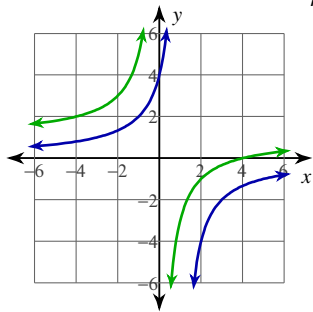
10)

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



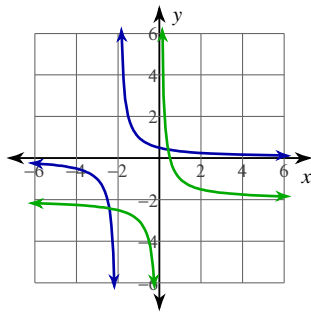
11)

$$h^{-1}(x) = -\frac{4}{x} + 1$$



12)

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



Inverse Reciprocal Functions

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Find the inverse of each function. Then graph the function and its inverse.

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

$$2) f(x) = -\frac{4}{x+1} + 2$$

$$3) h(x) = -\frac{4}{-x+2}$$

$$4) f(x) = -\frac{4}{-x+1} - 2$$

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

$$6) h(x) = \frac{1}{x+2} - 2$$

$$7) f(x) = \frac{2}{x-2}$$

$$8) f(x) = \frac{4}{x+2} - 1$$

$$9) g(x) = \frac{1}{x+1} + 1$$

$$10) g(x) = -\frac{4}{x-1} + 2$$

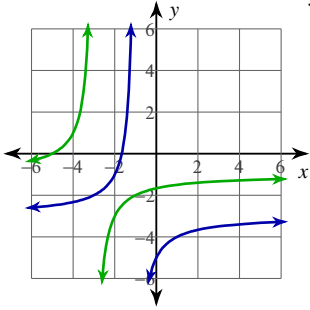
$$11) f(x) = \frac{2}{x}$$

$$12) g(x) = -\frac{3}{x+1} - 2$$

Answers to Inverse Reciprocal Functions (ID: 5)

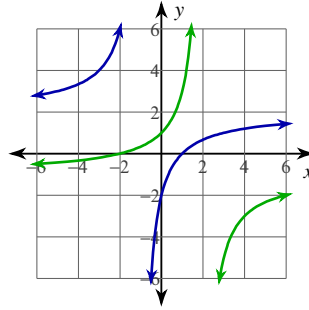
1)

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



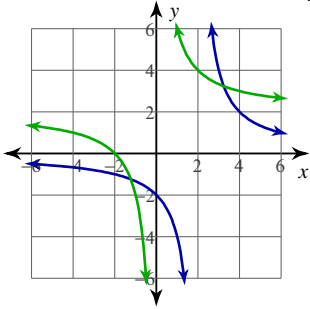
2)

$$f^{-1}(x) = \frac{4}{-x+2} - 1$$



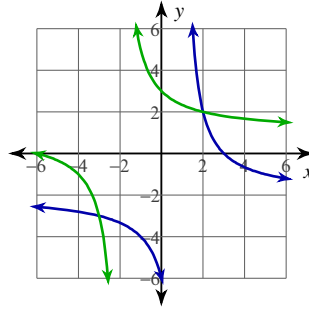
3)

$$h^{-1}(x) = \frac{4}{x} + 2$$



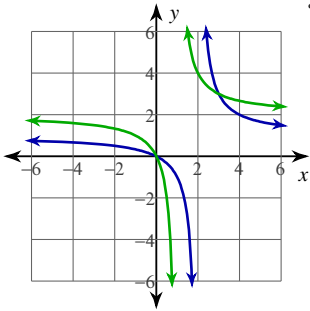
4)

$$f^{-1}(x) = \frac{4}{x+2} + 1$$



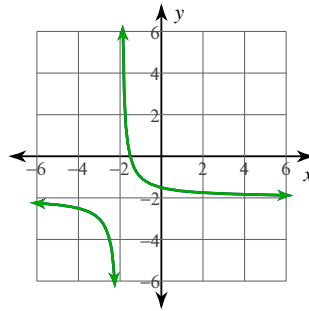
5)

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



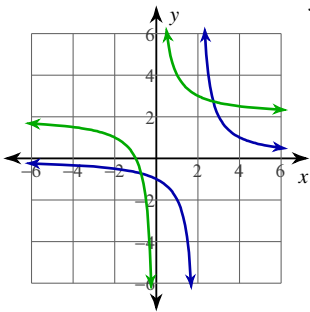
6)

$$h^{-1}(x) = \frac{1}{x+2} - 2$$



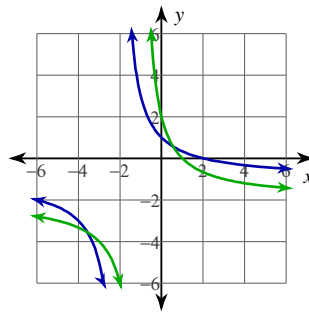
7)

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



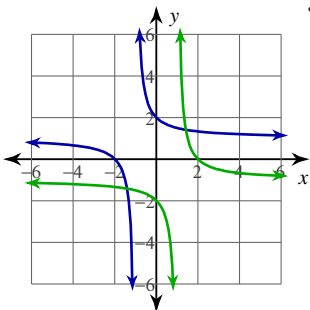
8)

$$f^{-1}(x) = \frac{4}{x+1} - 2$$



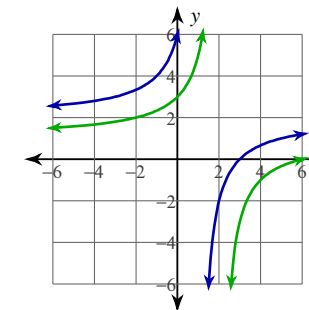
9)

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



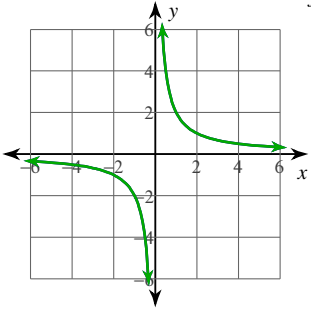
10)

$$g^{-1}(x) = -\frac{4}{x-2} + 1$$



11)

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



12)

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

