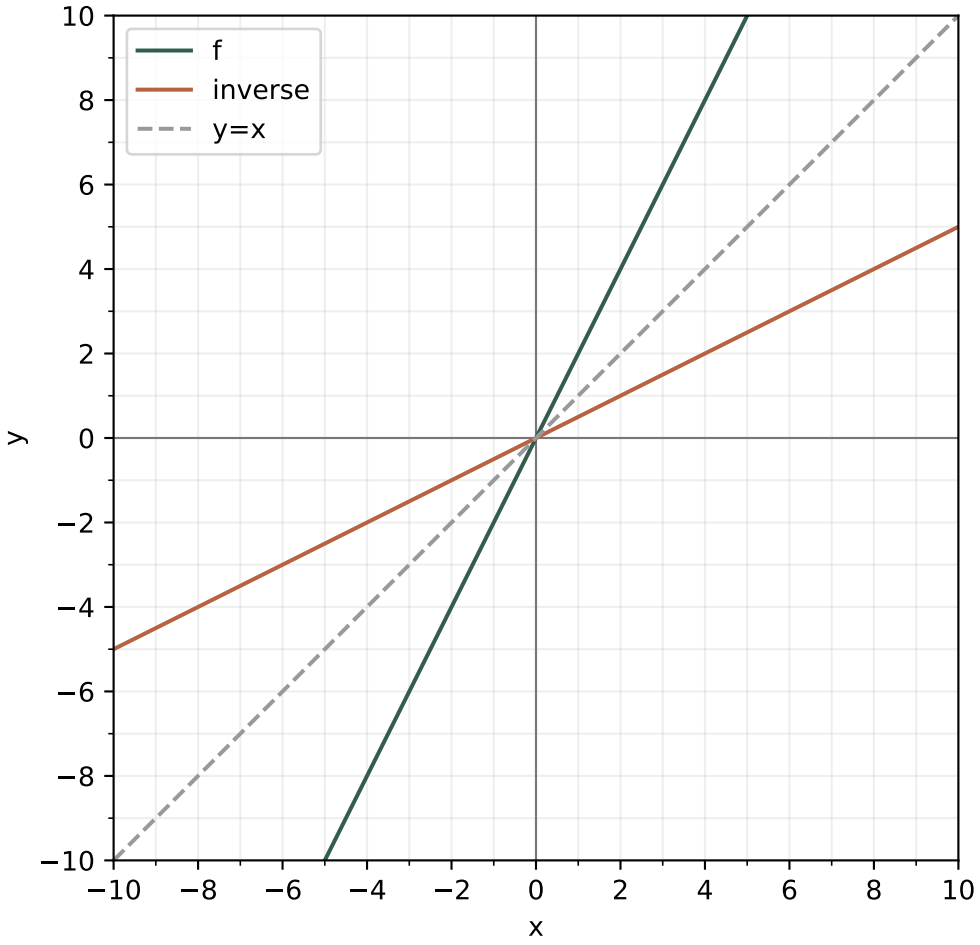
Graphing Inverse Linear Functions

ANSWER / CASE 1

Find the inverse of f(x)=2x+(0) on all real numbers. Plot both lines and check the point (0,0).

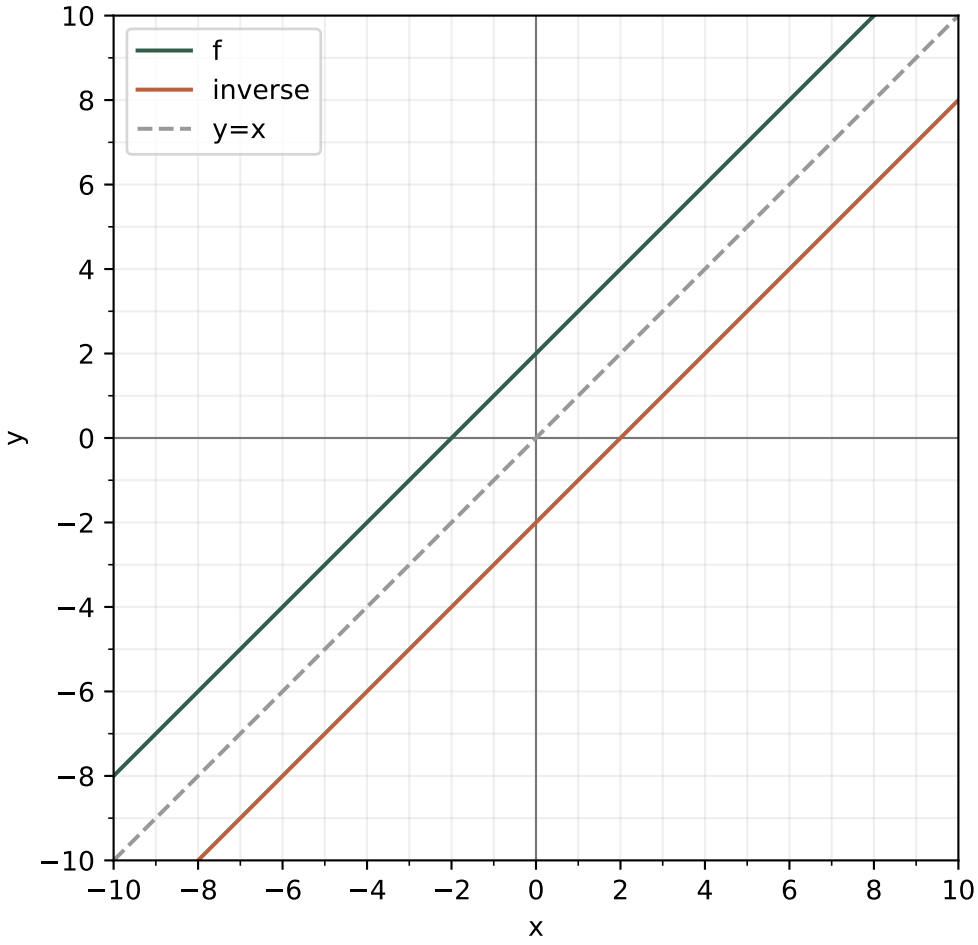


f inverse(x)=(x-(0))/(2); (0,0) becomes (0,0). Both domain and range are all real numbers.
1. Write y=mx+c; exchange x and y.
2. Solve x=my+c for y=(x-c)/m. Nonzero slope makes the original one-to-one.

Graphing Inverse Linear Functions

ANSWER / CASE 2

Find the inverse of f(x)=1x+(2) on all real numbers. Plot both lines and check the point (0,2).

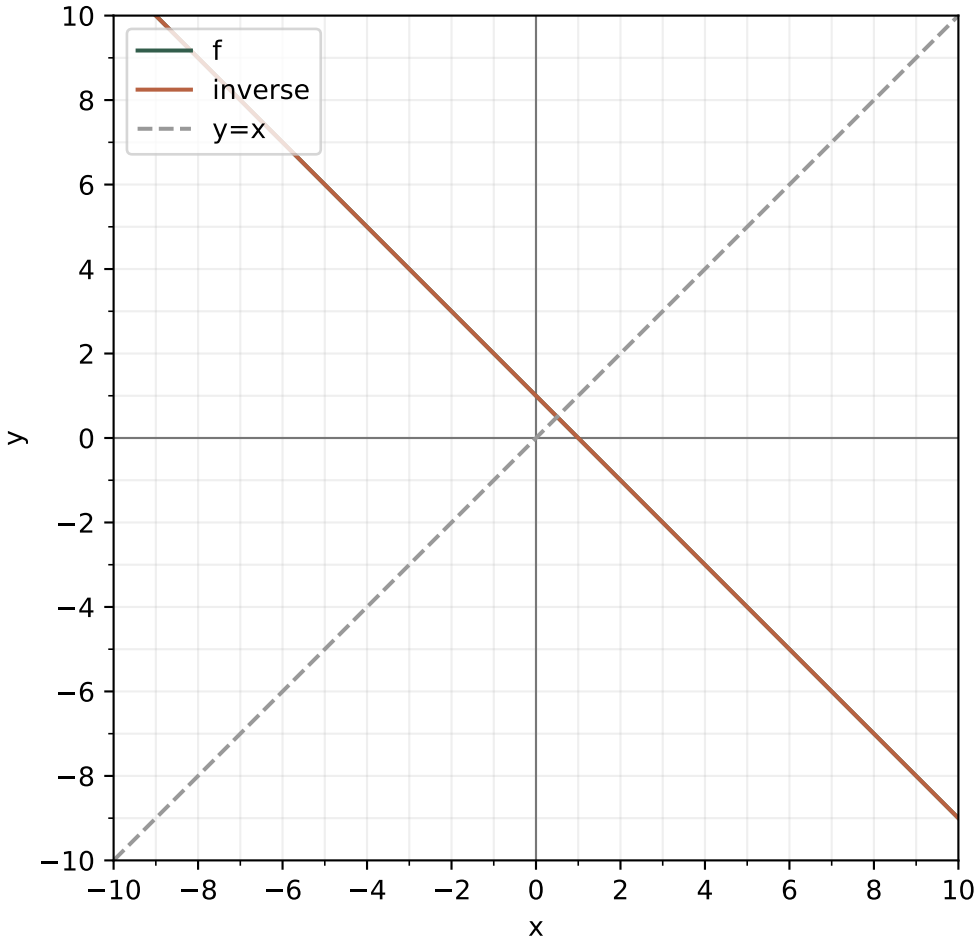


f inverse(x)=(x-(2))/(1); (0,2) becomes (2,0). Both domain and range are all real numbers.
1. Write y=mx+c; exchange x and y.
2. Solve x=my+c for y=(x-c)/m. Nonzero slope makes the original one-to-one.

Graphing Inverse Linear Functions

ANSWER / CASE 3

Find the inverse of f(x)=-1x+(1) on all real numbers. Plot both lines and check the point (0,1).

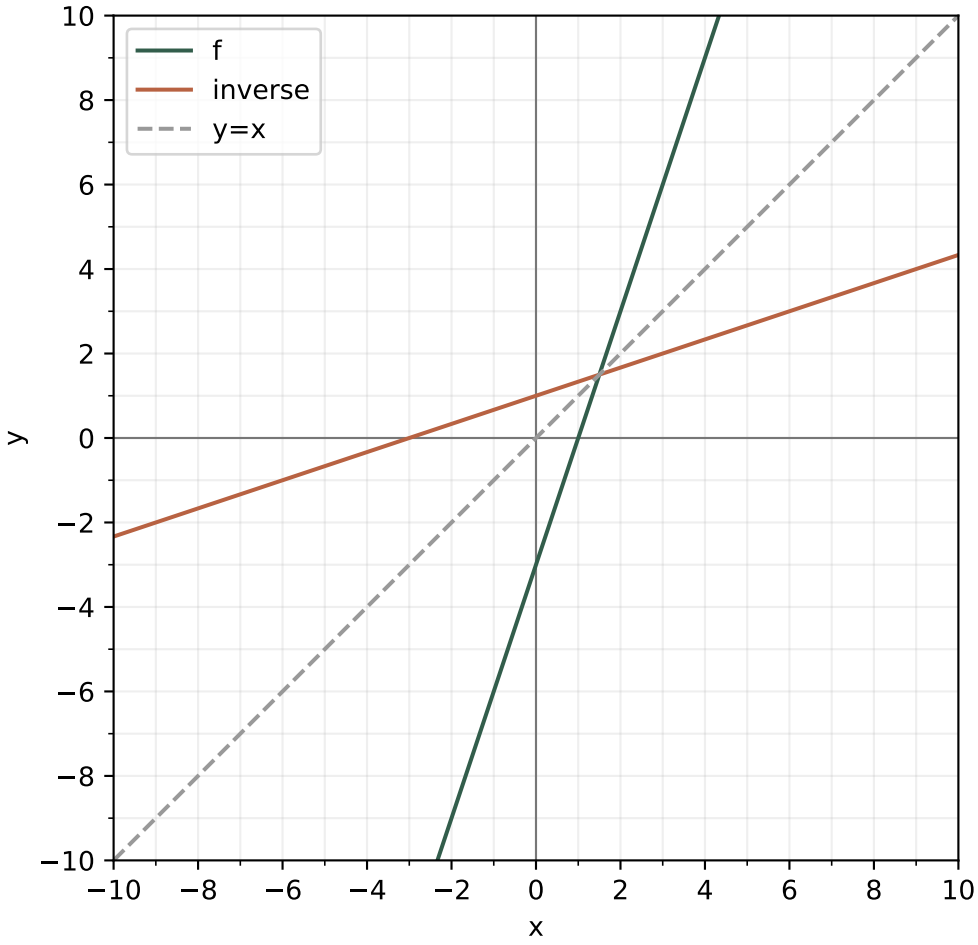


f inverse(x)=(x-(1))/(-1); (0,1) becomes (1,0). Both domain and range are all real numbers.
1. Write y=mx+c; exchange x and y.
2. Solve x=my+c for y=(x-c)/m. Nonzero slope makes the original one-to-one.

Graphing Inverse Linear Functions

ANSWER / CASE 4

Find the inverse of f(x)=3x+(-3) on all real numbers. Plot both lines and check the point (0,-3).



f inverse(x)=(x-(-3))/(3); (0,-3) becomes (-3,0). Both domain and range are all real numbers.
1. Write y=mx+c; exchange x and y.
2. Solve x=my+c for y=(x-c)/m. Nonzero slope makes the original one-to-one.