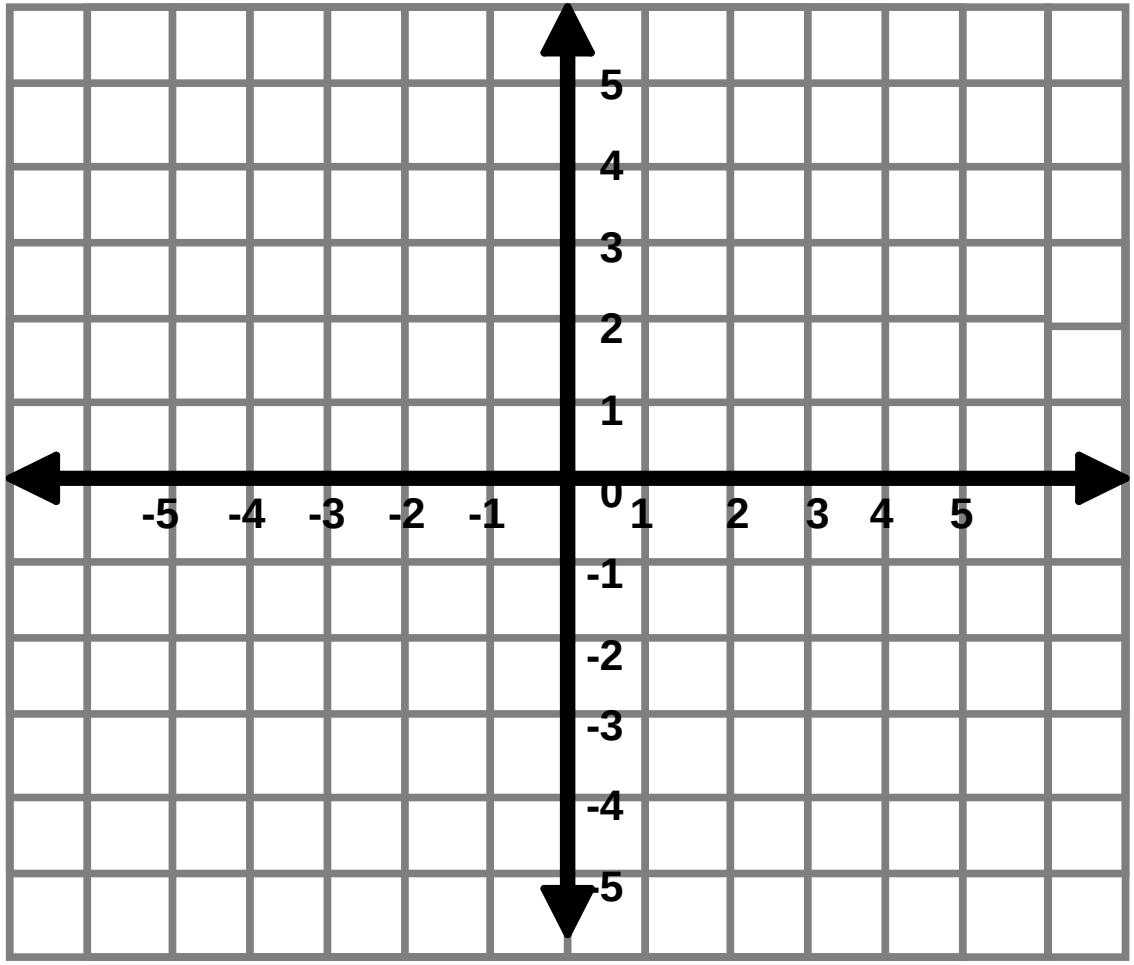
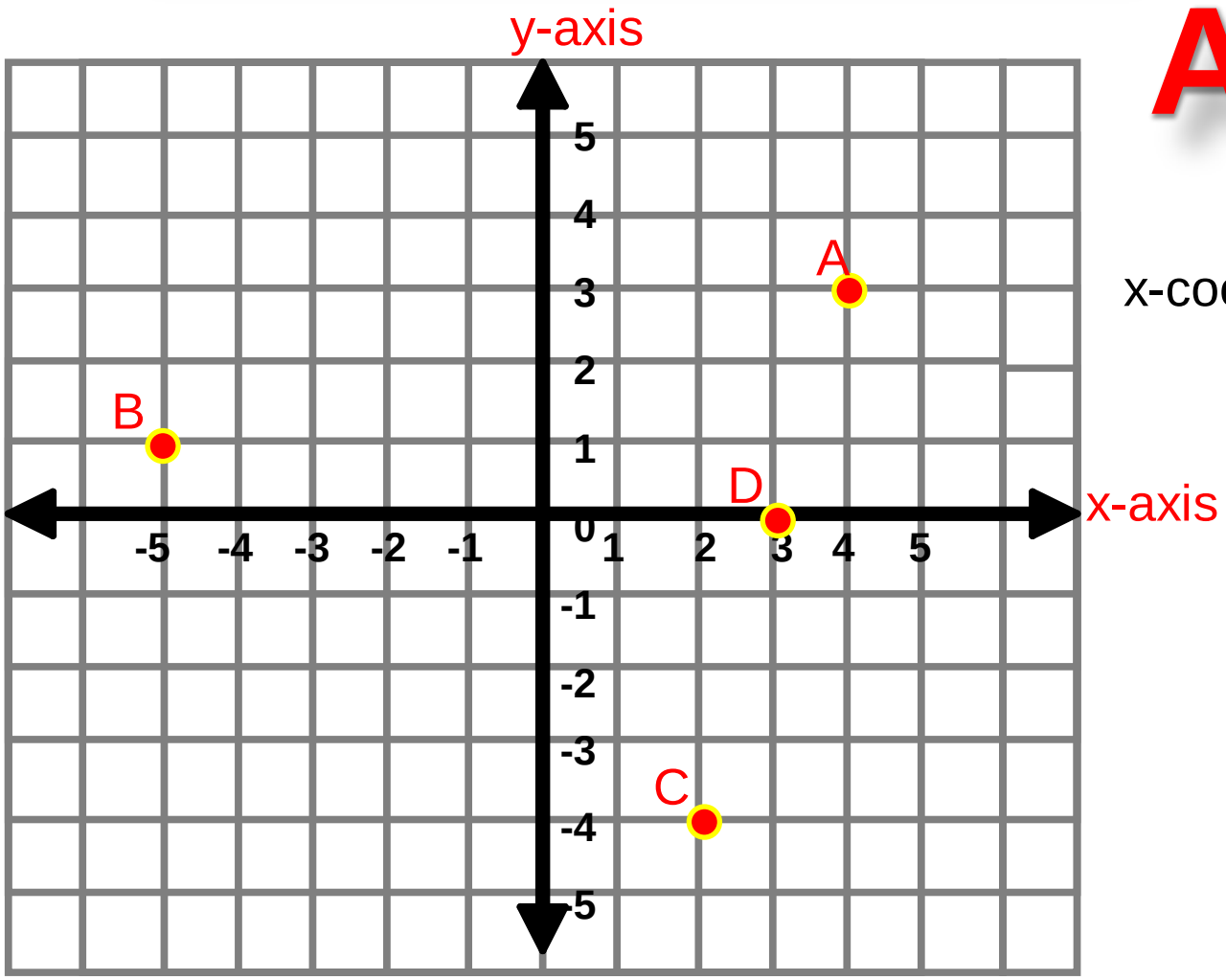
6.2

Representation of Functions

COORDINATE PLANE



COORDINATES

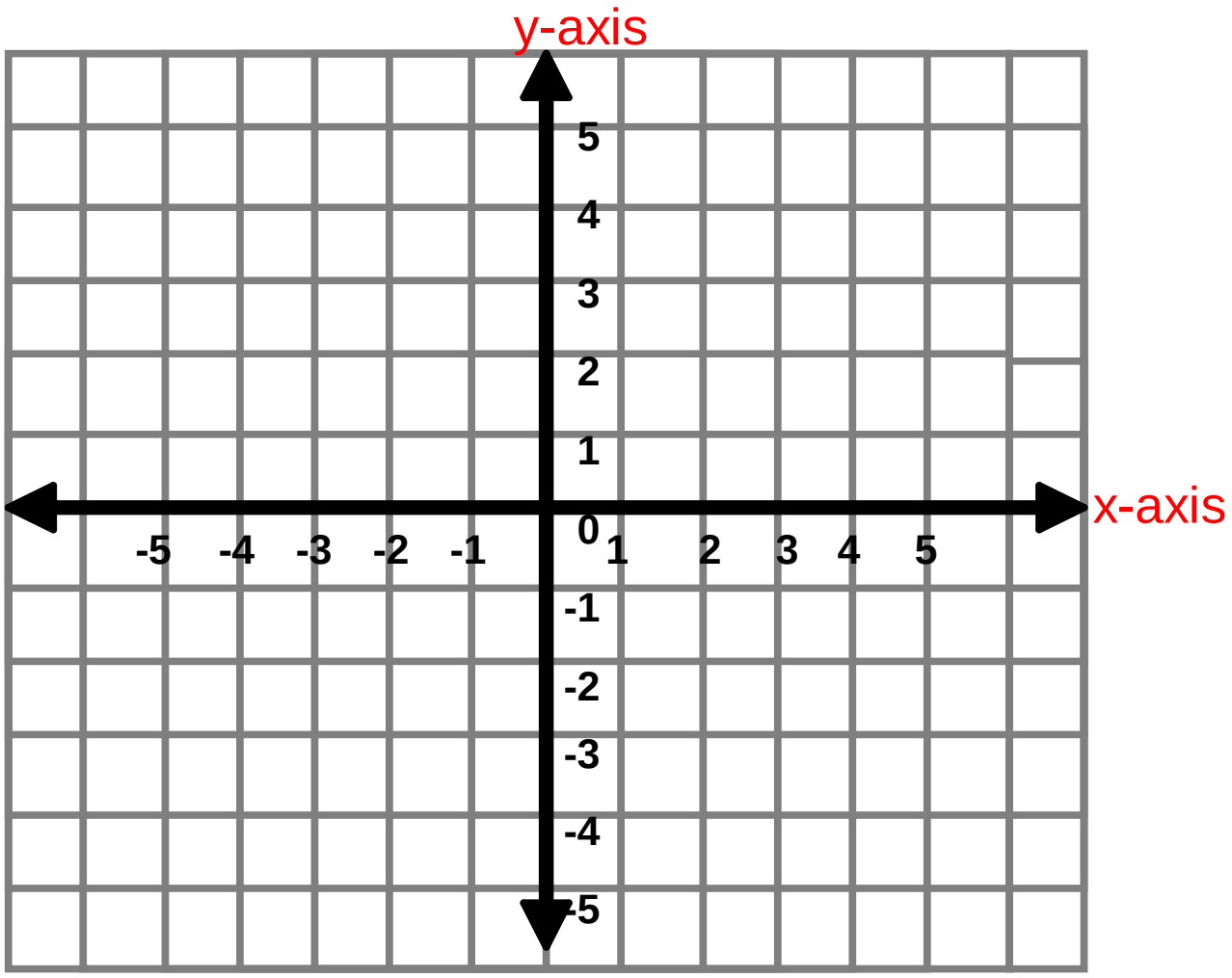


A(,)

x-coordinate

y-coordinate

PLOTTING POINTS



A(5,2)
B(-3,-4)
C(-1,5)
D(3,-5)
E(4,6)
F(0,0)
G(4,0)
H(0,-3)

Examples

a. Write a function rule for "The output is five less than the input."

b. Write a function rule for "The output is the square of the input."

On Your Own

a. Write a function rule for "The output is eight more than the input."

b. Write a function rule for "The output is four times the input."

Examples

What is the value of $y = 2x + 5$ when $x = 3$?

What is the value of $y = -2x + 7$ when $x = 2$?

On Your Own

1. Write a function rule for "The output is one-fourth of the input."

Find the value of y when $x = 5$.

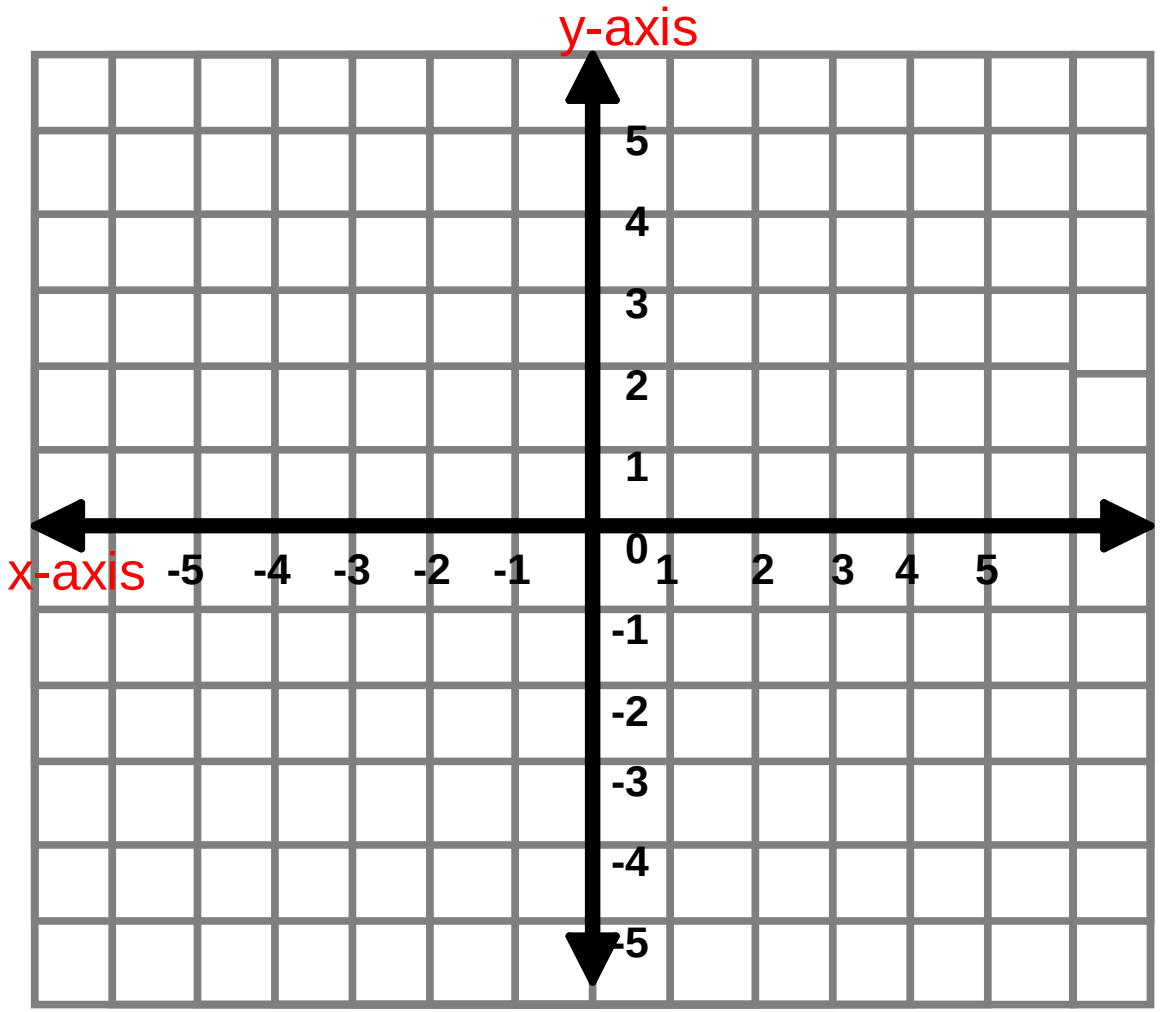
2. $y = 4x - 1$

3. $y = 10x$

4. $y = 7 - 3x$

Graph the function $y = -2x + 1$ using inputs of $-1, 0, 1,$ and 2.

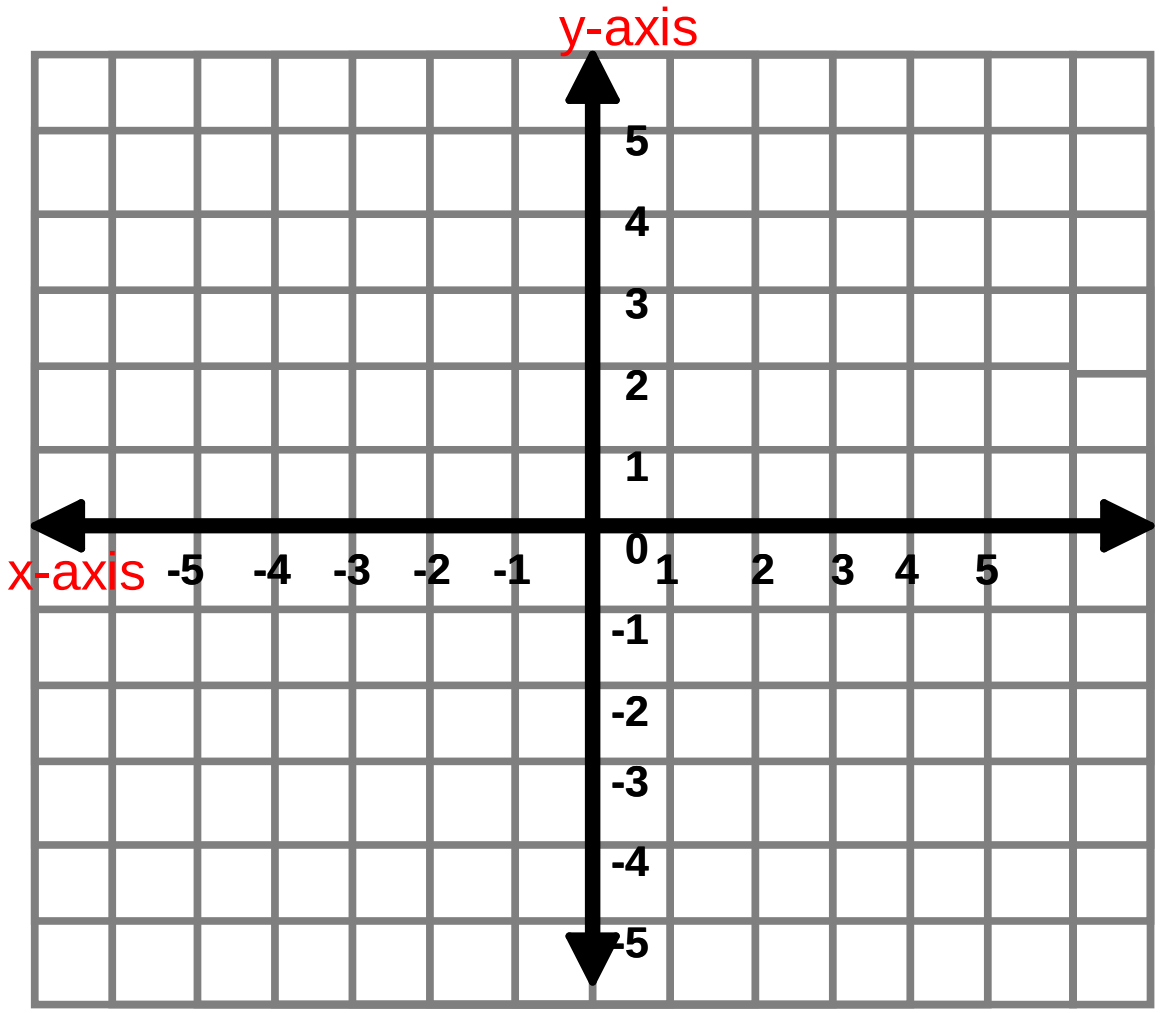
Make an input-output table.



On Your Own

Graph the function

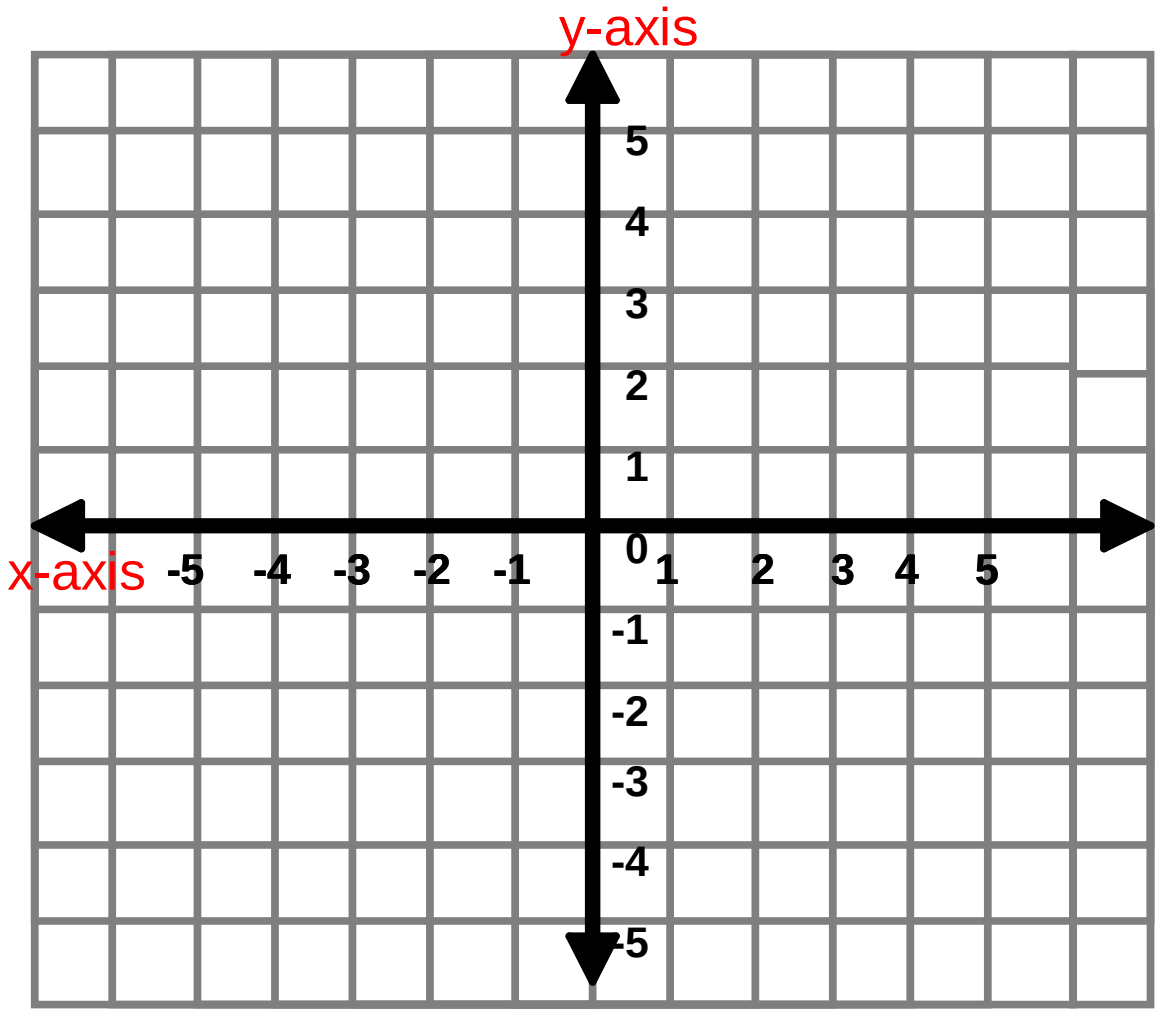
5. $y = x + 1$



On Your Own

Graph the function

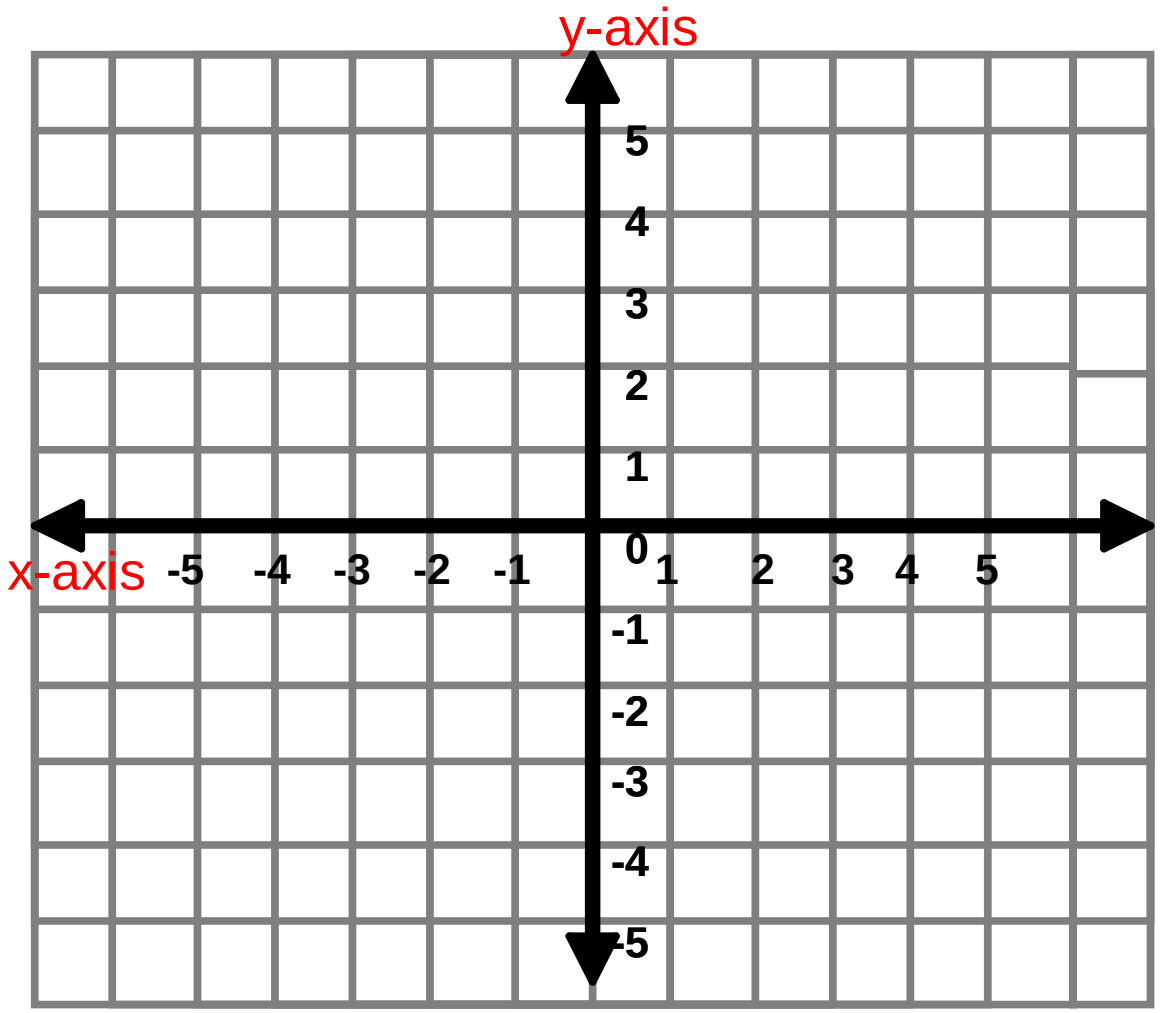
6. $y = -3x$



On Your Own

Graph the function

7. $y = 3x + 2$



The number of pounds p of carbon dioxide produced by a car is 20 times the number of gallons g of gasoline used by the car. Write and graph a function that describes the relationship between g and p.