# Answer on Question #57198 - Math – Algebra

## Question

Draw the graph of following functions on graph paper.

(i) y=x

(ii) y=x+1

(iii) y=x-1

(iv) y=x+2

(v) y=2x

(vi) y=3x+5

(vii) y=-x+1

(viii) y=-x+2

(ix) y=-x

(x) y=-x-1

## Solution

Since all functions are linear, to plot every function we need to specify two points.

**(i)** $y = x$;

first point: x = 0, y = 0;

second point: x = 1, y = 1.

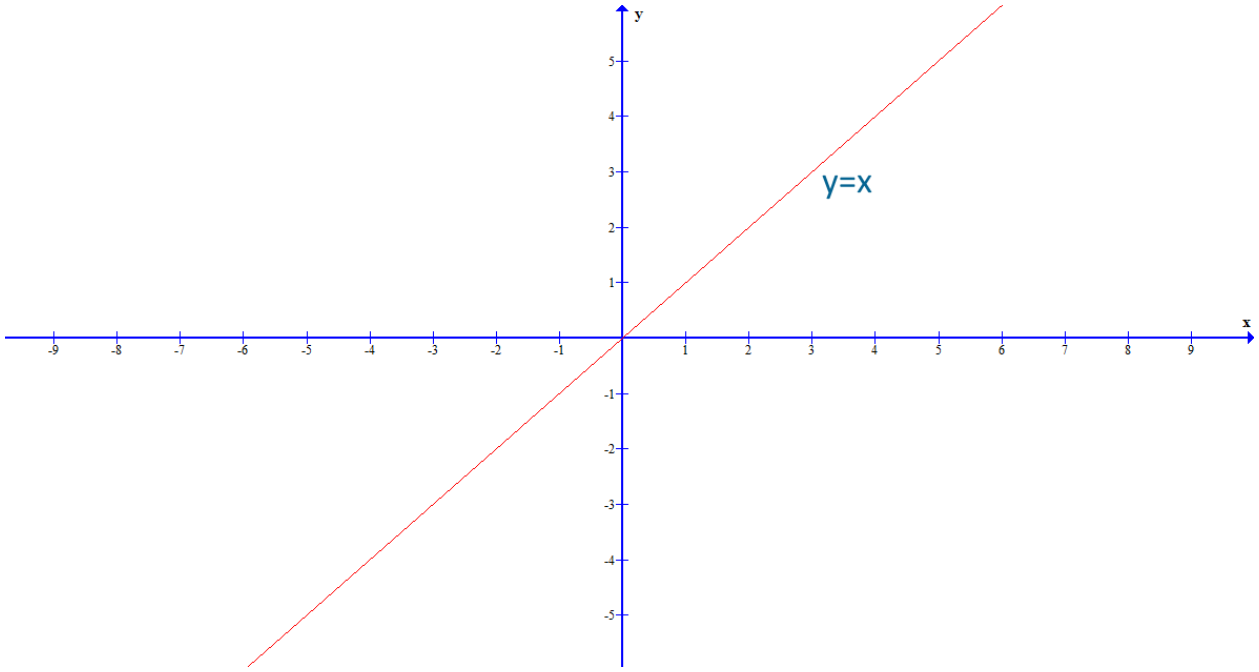


Fig. 1 Graph of the function y=x

**(ii)** $y = x + 1$;

first point: x = 0, y = 1;

second point: x = -1, y = 0;

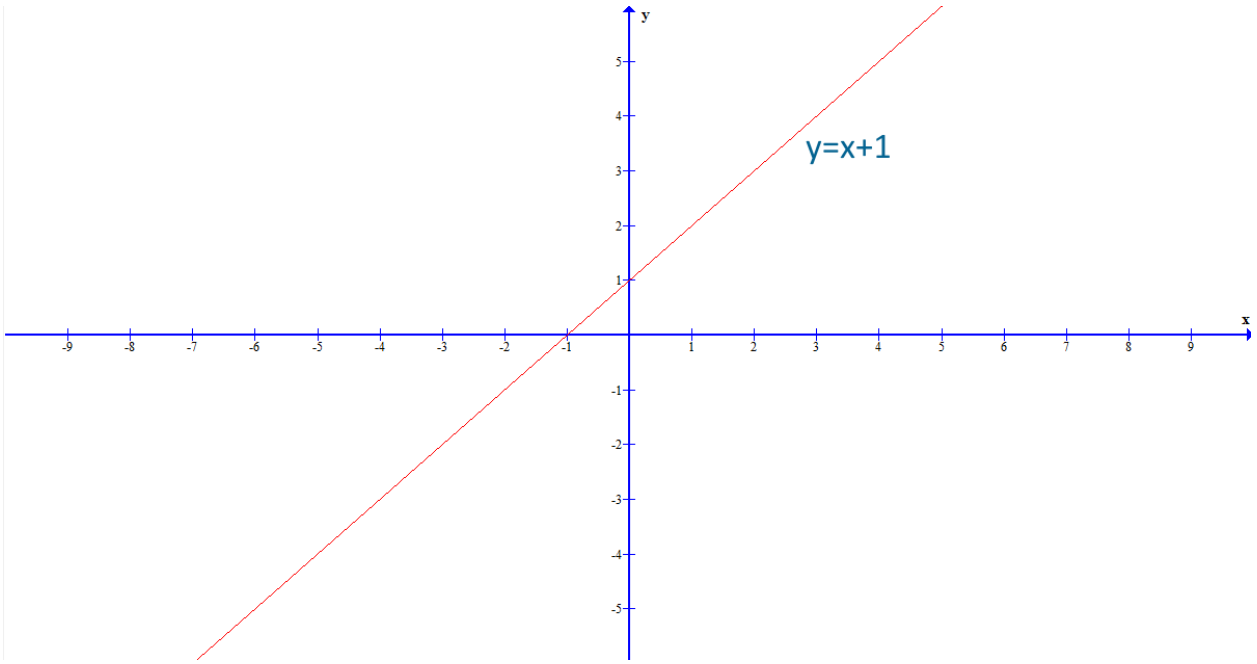


Fig. 2 Graph of the function y=x + 1

**(iii)** $y = x - 1$;

first point: x = 1, y = 0;

second point: x = 0, y = -1.

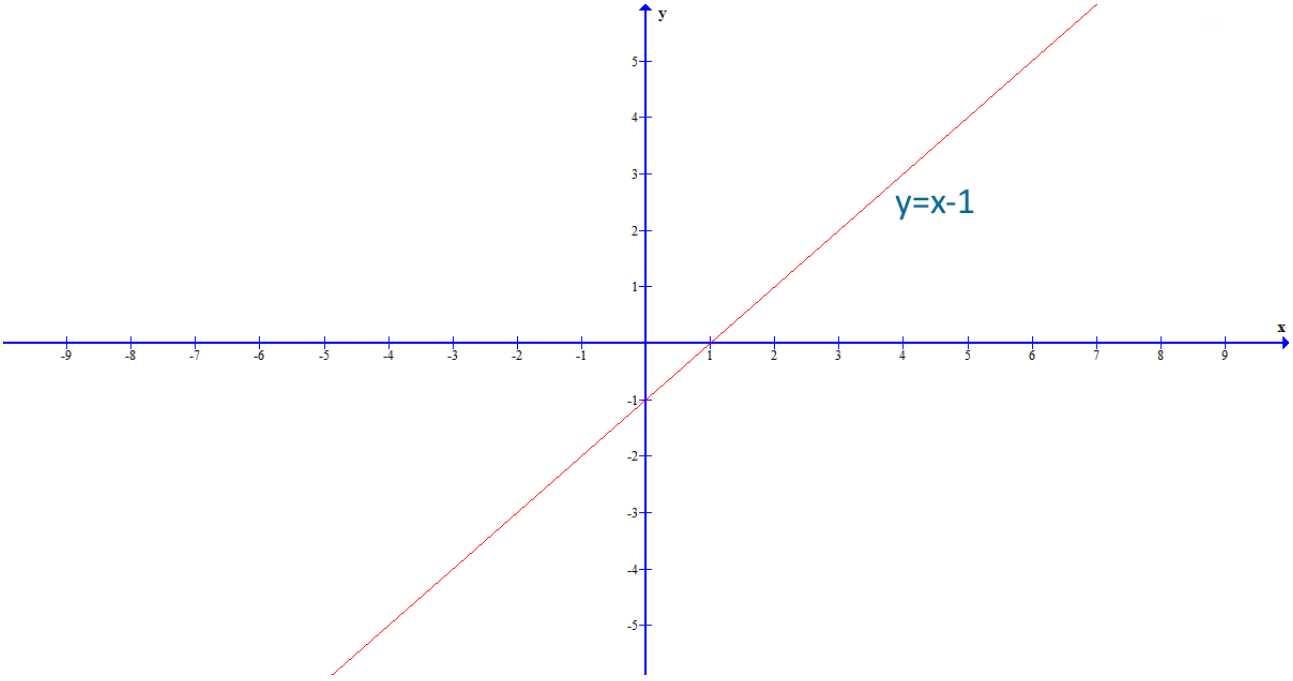


Fig. 3 Graph of the function y=x - 1

**(iv)** $y = x + 2$;

first point: x = 0, y = 2;

second point: x = -2, y = 0;

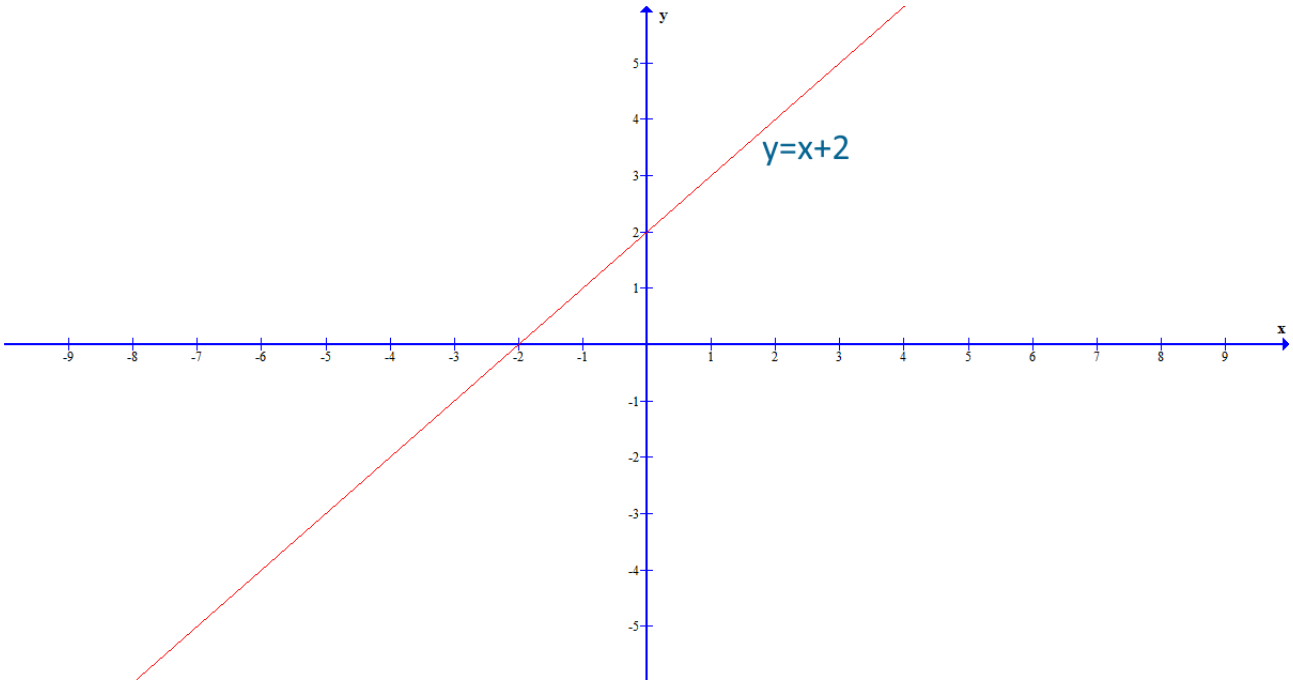


Fig. 4 Graph of the function y=x + 2

**(v)** $y = 2x$;

first point: x = 0, y = 0;

second point: x = 1, y = 2;

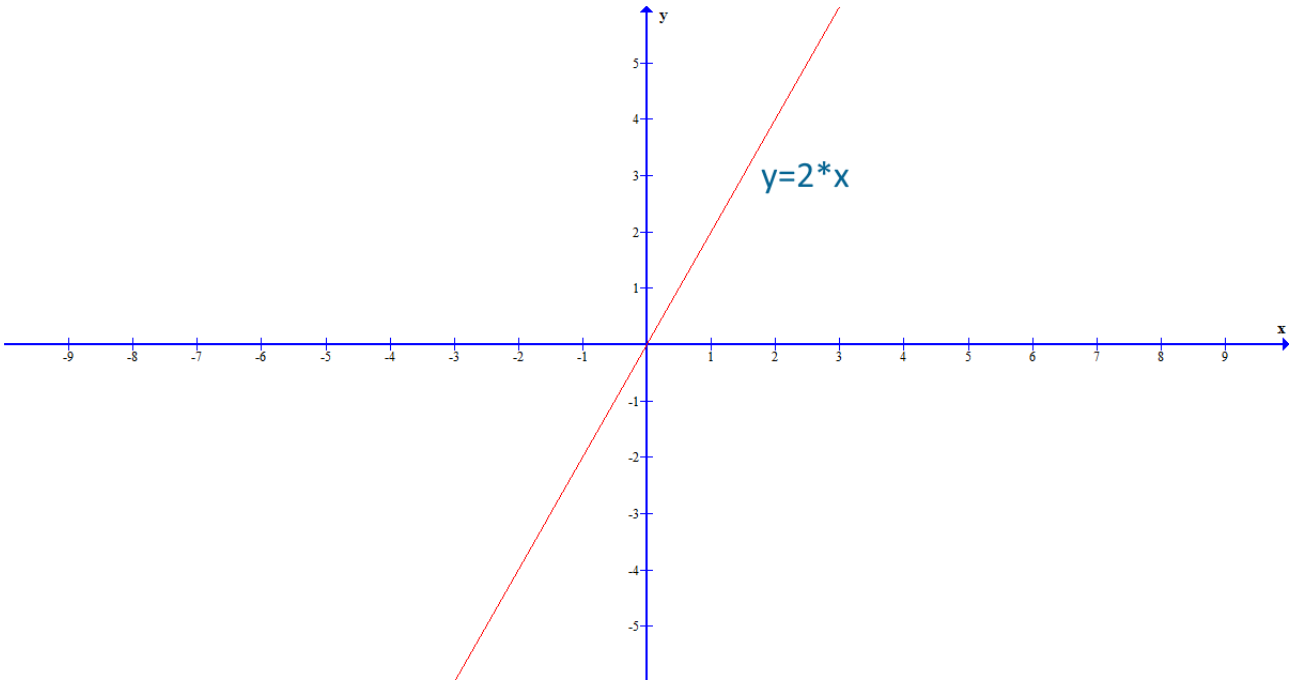


Fig. 5 Graph of the function y=2x

**(vi)** $y = 3x + 5$;

first point: x = 0, y = 5;

second point: x = -2, y = -1;

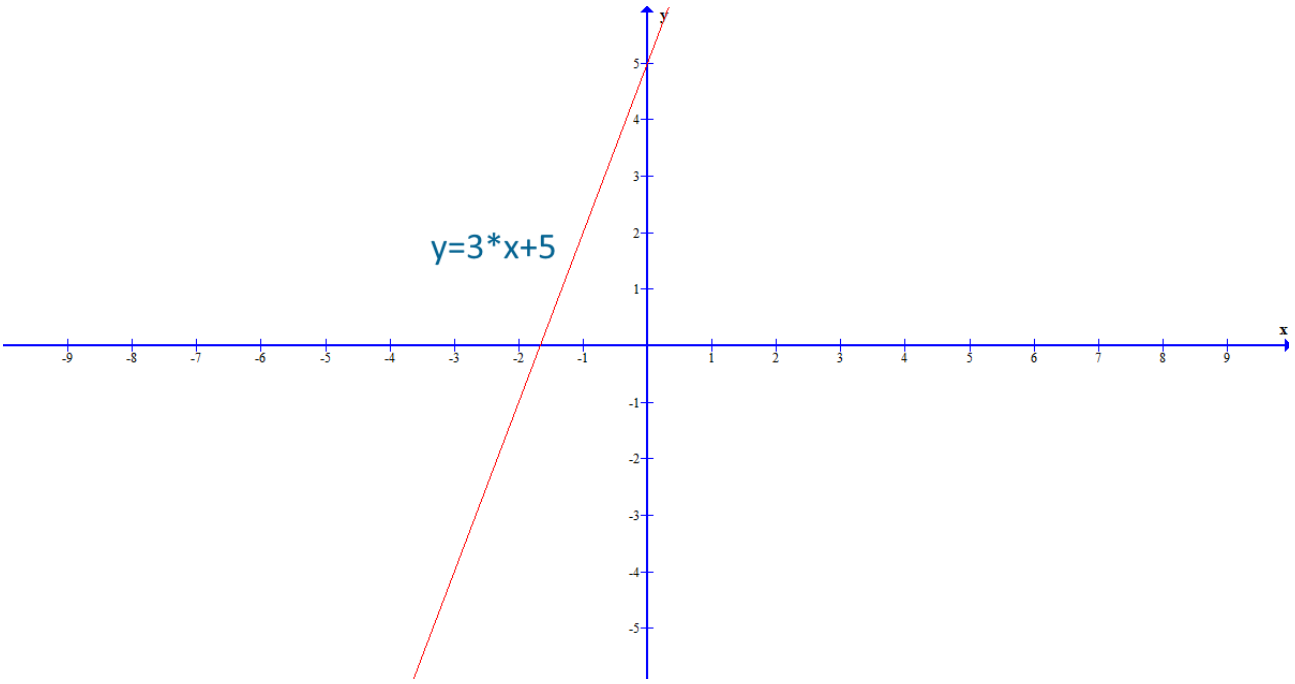


Fig. 6 Graph of the function y=3x + 5

**(vii)** $y = -x + 1$;

first point: x = 1, y = 0;

second point: x = 0, y = 1;

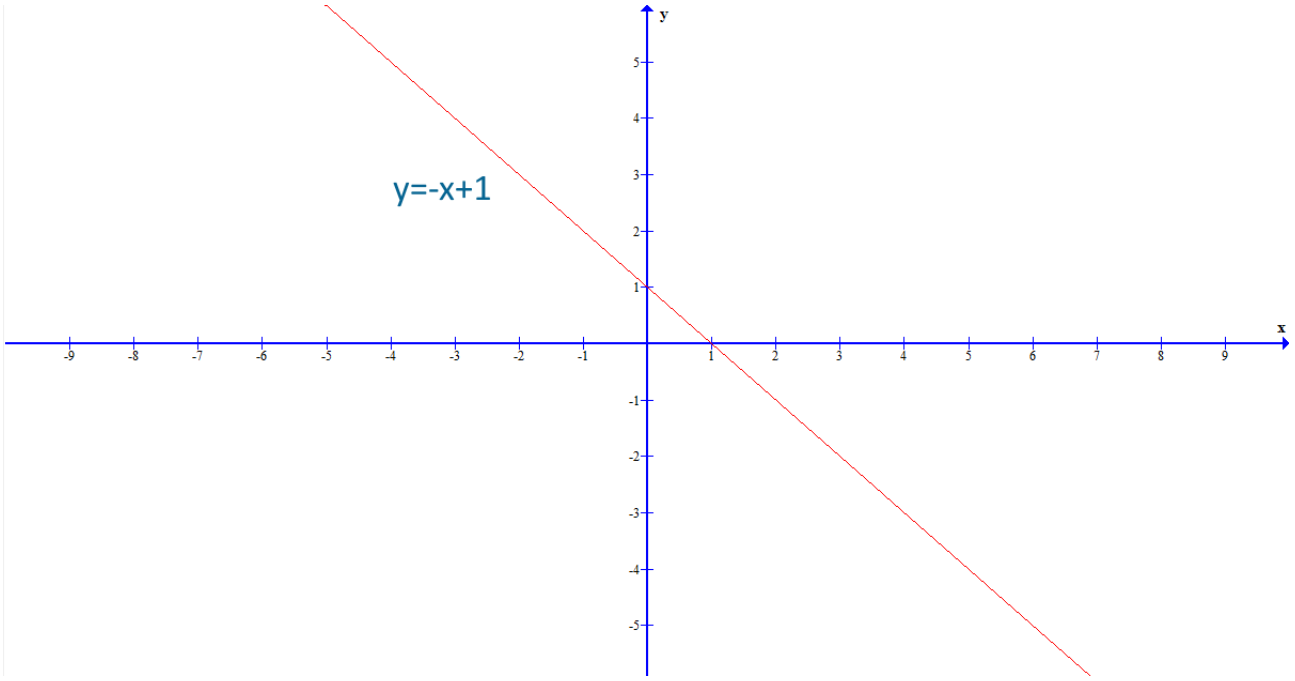


Fig. 7 Graph of the function y=-x + 1

**(viii)** $y = -x + 2$;

first point: x = 2, y = 0;

second point: x = 0, y = 2;

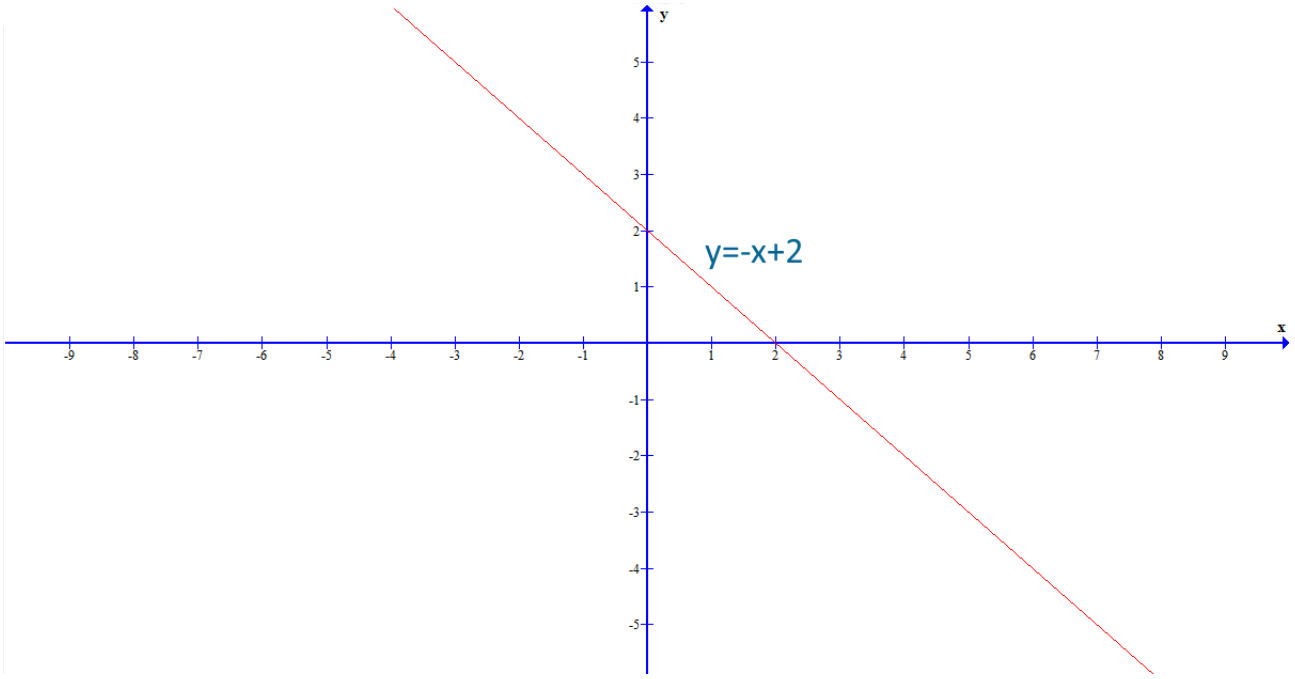


Fig. 8 Graph of the function y=-x + 2

**(ix)** $y = -x$;

first point: x = 0, y = 0;

second point: x = 1, y = -1;

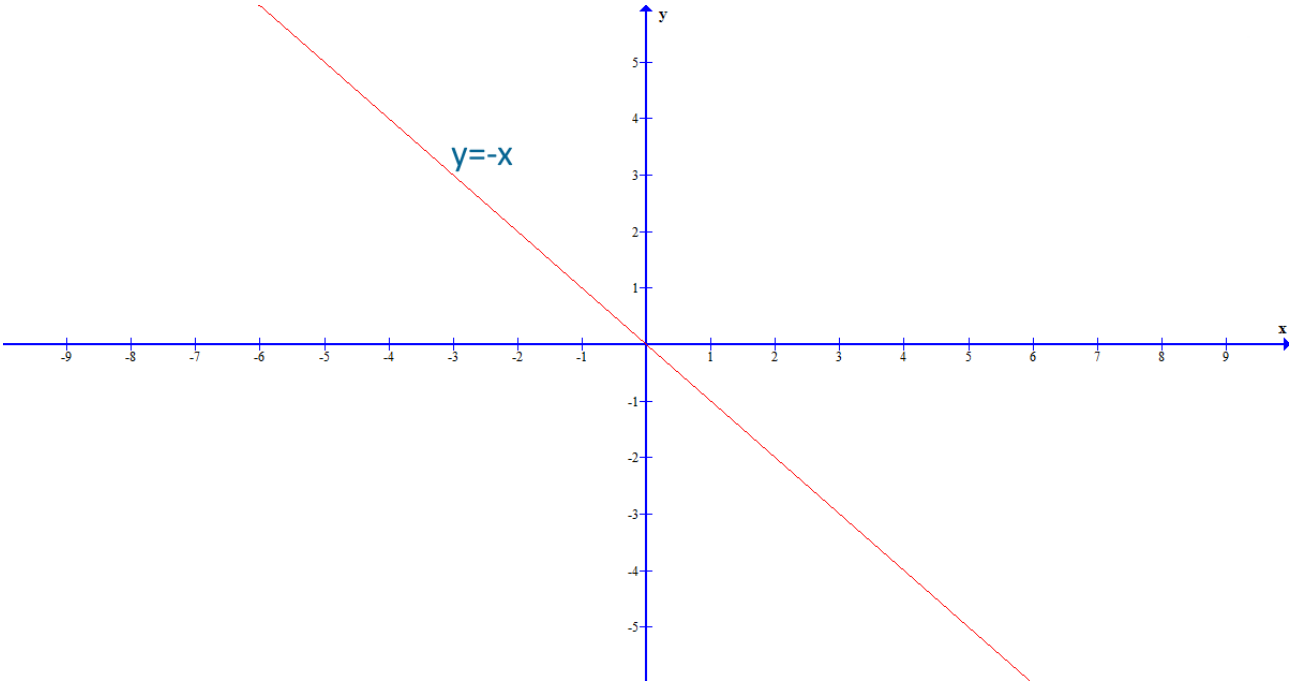


Fig. 9 Graph of the function y=-x

**(x)** $y = -x - 1$;

first point: x = 0, y = -1;

second point: x = 1, y = -2;

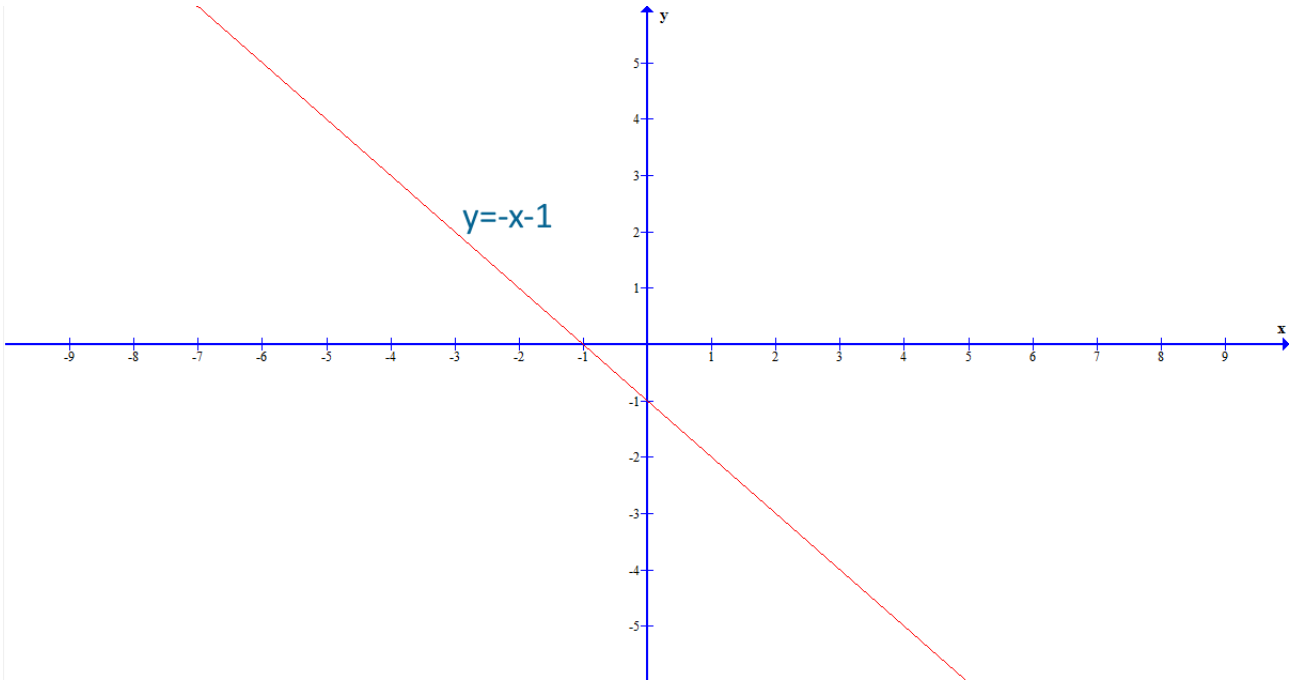


Fig. 10 Graph of the function y=-x-1