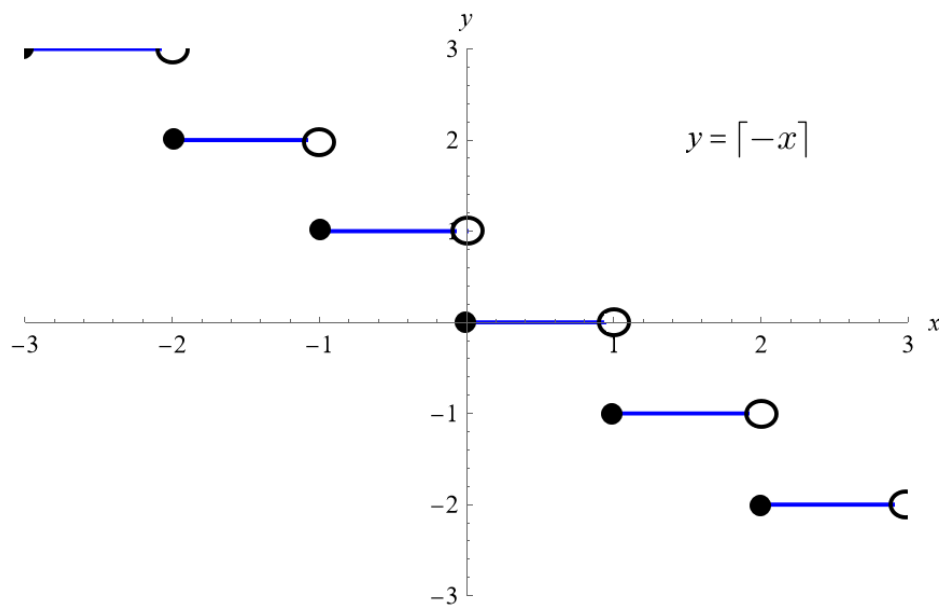
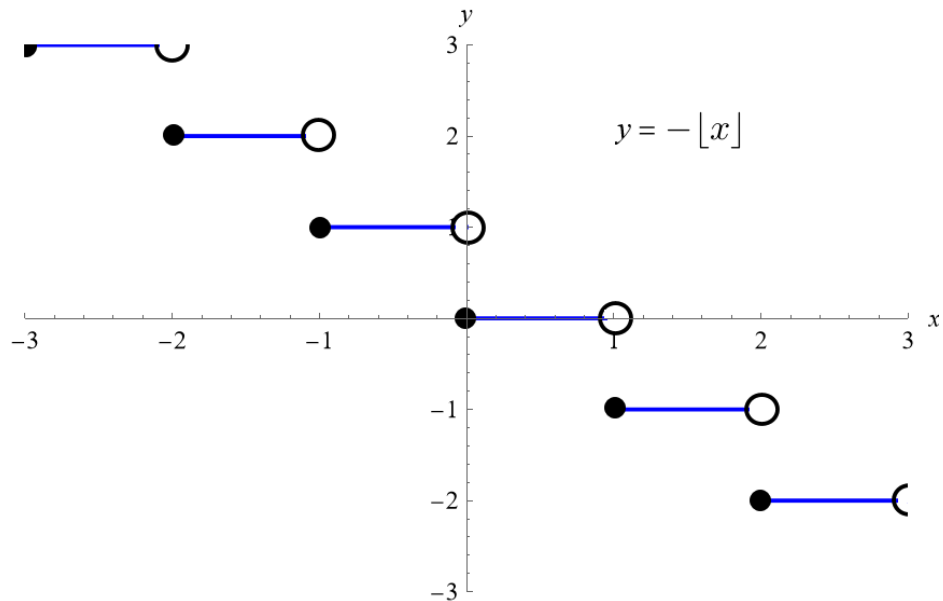


## Exercise 35

Does  $\lceil -x \rceil = -\lfloor x \rfloor$  for all real  $x$ ? Give reasons for your answer.

### Solution

Plots of  $y = \lceil -x \rceil$  and  $y = -\lfloor x \rfloor$  are shown below.



The graphs are identical. Therefore,  $\lceil -x \rceil = -\lfloor x \rfloor$  for all real  $x$ .