

Exercise 59

If possible, find all values of a such that there are no y - intercepts for $f(x) = 2|x + 1| + a$.

Solution

To find the y -intercept of the function, plug in $x = 0$.

$$f(0) = 2|0 + 1| + a = 2(1) + a = 2 + a$$

Any value of a will result in a y -intercept: $(0, 2 + a)$.