

Exercise 6

For the following exercises, evaluate the function at the indicated values: $f(-3)$; $f(2)$; $f(-a)$; $-f(a)$; $f(a + h)$.

$$f(x) = 2|3x - 1|$$

Solution

Evaluate the function at the given values of x .

$$f(-3) = 2|3(-3) - 1| = 2|-10| = 2(10) = 20$$

$$f(2) = 2|3(2) - 1| = 2|5| = 2(5) = 10$$

$$f(-a) = 2|3(-a) - 1| = 2|-3a - 1| = 2|3a + 1|$$

$$-f(a) = -2|3(a) - 1| = -2|3a - 1|$$

$$f(a + h) = 2|3(a + h) - 1| = 2|3a + 3h - 1|$$