Chapter 1

Functions and Graphs

Exercise Solution

Exercise 1.1.7

Instruction

Find the below values for the function $f(x) = 5x - 2$, if they exist, then simplify.

(a) $f(0)$

(b) $f(1)$

(c) $f(3)$

(d) $f(-x)$

(e) $f(a)$

(f) $f(a+h)$

Solution

(a) $f(0) = 5 \cdot 0 - 2 = 0 - 2 = -2$.

(b) $f(1) = 5 \cdot 1 - 2 = 5 - 2 = 3$.

(c) $f(2) = 5 \cdot 3 - 2 = 15 - 2 = 13$.

(d) $f(-x) = 5(-x) - 2 = -5x - 2$.

(e) $f(a) = 5a - 2$.

(f) $f(a+h) = 5(a+h) - 2 = 5a + 5h - 2$.

Answer

(a) -2.

(b) 3.

(c) 13.

(d) $-5x - 2$.

(e) $5a - 2$.

(f) $5a + 5h - 2$.