

Name in English

Example 4 Iterate a Function

Find the first three iterates x_1, x_2, x_3 for each function for the given initial value.

a) $f(x) = 12x + 8, \quad x_0 = 4$

b) $f(x) = -9x + 1, \quad x_0 = -6$

c) $f(x) = -6x + 3, \quad x_0 = 8$

d) $f(x) = 8x + 3, \quad x_0 = -4$

e) $f(x) = 4x^2 + 5, \quad x_0 = 1$