Exercise 2.3

1. a) f(0) = 1/0 which is not defined.

7. a) The domain would be $Z^+ \times Z^+$

9. a) Rounds up to the next integer of ¾,so it is 1.

Exercise 2.4

1. $a_n = 2 * (-3)^n + 5^n$

a) $a_0 = 2 * (-3)^0 + 5^0 = 2 * 1 + 1 = 2$

b) $a_1 = 2 * (-3)^1 + 5^1 = 2 * -3 + 5 = -6 + 5 = -1$

c) $a_4 = 2 * (-3)^4 + 5^4 = 2 * 81 + 625 = 162 + 625 = 787$

3.

a) $2^n + 1$?

$a_0 = 2^0 + 1 = 1 + 1 = 2$

$a_1 = 2^1 + 1 = 2 + 1 = 3$

$a_2 = 2^2 + 1 = 4 + 1 = 5$

$a_3 = 2^3 + 1 = 8 + 1 = 9$