Exercise 2.11

-- Polynomial function

function Polynomial(p,x)

local result = 0;

for i = 1, #p do

result = result + p[i] \* (x^(i-1));

end

return result;

end

Exercise 2.12

-- Polynomial function

function Polynomial2(p,x)

local result = 0;

for i = 1, #p do

local expo = 1;

for j = 1, (i-1) do

expo = expo \* x;

end

result = result + p[i] \* expo;

end

return result;

end

Exercise 2.13

x = nil -- (some value)

-- Is x a boolean   
print (((x == false) or (x == true)));

Exercise 2.14

No, yes

Exercise 2.15

Sunday = "Monday";   
Monday = "Sunday";  
t = {Sunday = "Monday", [Sunday] = Monday}  
print (t.Sunday, t[Sunday], t[t.Sunday])

Output => Monday Sunday Sunday

Variable Sunday = String Value “Monday”  
Variable Monday = String Value “Sunday”

The Table t has:  
key Sunday which equals string “Monday”  
and key [Sunday] (Which take the value of variable Sunday (Which is string “Monday”) and set that as the Key) which equals the Variable Monday which equals string “Sunday”

Which means t can be written as:

t = {Sunday = “Monday”, Monday = “Sunday”}  
 or  
 t = {Sunday = Sunday, Monday = Monday};

* Then t.Sunday (same as t[“Sunday”]) is looking for key Sunday inside the table and returns its value the string “Monday”
* Then t[Sunday] (same as t[“Monday”](Outside the table)) is looking for key Monday(outside) as Sunday equates to the string “Monday”. The key Monday is not explicitly in the table but key [Sunday] equate to the key “Monday” therefor returns the value of variable Monday which is String “Sunday”
* Then t[t.Sunday](Same as t[“Monday”(Inside the table)]) is looking for the key Monday(Inside) as Sunday equates to the string “Monday”. The key Monday is not explicitly in the table but key [Sunday] equate to the key “Monday” therefor returns the value of variable Monday which is String “Sunday”

Exercise 2.16

EscapeTable = {(["/b"] = "BackSlash"), (["/n"] = "NewLine"), (["/t"] = "Tab")}