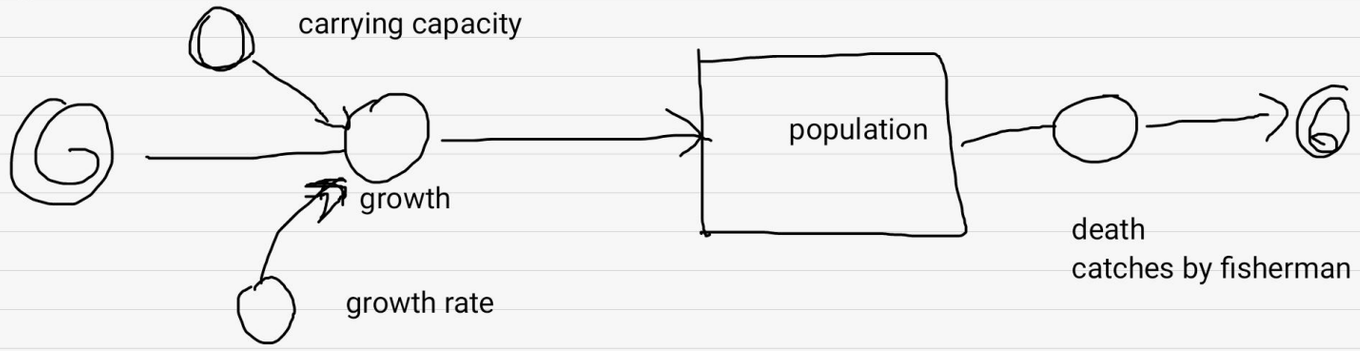
SOAL I

a)



b) Algoritma :

Initial :

P_0 = Pop awal (500)

g = growth (10%)

M = Carrying capacity (5000)

d = death karena dipancing (5%)

t = 12 bulan

iterasi = 100

Hitung :

$\Delta t = \frac{t}{\text{iterasi}} = \frac{12}{100}$

Looping :

for i = 1 to iterasi do :

$\Delta P = \left(\frac{g P_i}{M}\right) P_i \Delta t - d P_i \Delta t$

$P_i = P_{i-1} + \Delta P$

SOAL II

a) A = Kecepatan

B = Laju Perubahan kecepatan

C = Percepatan

D = massa

E = Gaya gesek

F = Gaya berat

G = konstanta gesek

b) Algoritma:

Initial :

S_0 = Posisi awal

m = massa benda

g = Percepatan gravitasi

F_s = gaya gesek

F = gaya tarik yg dilakukan oleh seseorang

t = waktu

iterasi = berapa kali iterasi dilakukan

a = Percepatan benda

Hitung :

$\Delta t = \frac{t}{\text{iterasi}}$

Looping :

for i = 1 to iterasi do :

$\Delta F = F - F_s$

$\Delta a = \frac{\Delta F}{m}$

$\Delta s = \Delta a (\Delta t)^2$

$S_i = S_{i-1} + \Delta s$