Case Study HIV

A population on an isolated island consists of 1,000,000 heterosexual couples. 500 men have just come back from working abroad where they were infected with HIV. Otherwise, the entire population is healthy.

1. The probability that a partnership of an infected with a non-infected leads to an infection within one year is 0.3.
2. The incubation period of Aids (from infection to Aids) is on average 10 years, the progression time between Aids and death on average 2 years.

# Assignments:

1. Develop an Excel model to forecast the male and female population of this island for 40 years. Ignore population growths, aging and natural death.
2. Simulate the impact of an anti-retroviral drug which simply doubles incubation and progression period.