Free Response Practice Direct Variation Notes

Sea grass grows on a lake. The rate of growth of the sea grass is directly proportional to the amount of sea grass. Let G(t) be the amount of sea grass in the lake after *t* years measures in tons. The amount of sea grass when *t* = 0 is 100 tons. After 1 year, the amount of sea grass is 120 tons.

A) Find an expression for G(t), the amount of sea grass in the lake (in tons) after  *t* years.

B) In how many years will the amount of sea grass available be 300 tons?

C) If fish are introduced in the first year and consume 80 tons/year of sea grass, how long will it take before there is no sea grass?