Macro Module 4 Solow growth model depreciation rate practice exam questions

(The attached PDF file has better formatting.)

Question 4.1: Population growth rate

An economy follows a Solow growth model with no technological progress. In equilibrium

s = savings rate = 28.45%
y^* = steady state income per worker = 162 units per worker per annum
δ = depreciation rate of capital = 5.14% per annum
k^* = steady state capital per worker = 877 units per worker

What is the population growth rate in the steady state?

Answer 4.1: 28.45% × (162 / 877 − 5.14%) = 3.79%

(steady state growth rate of capital per worker = 0 = $s \times (y/k) - s\delta - n \Rightarrow s \times (y/k) - s\delta$