Question 1 **(4 marks)**

A generator is capable of producing 3.00×10^2 kW of electricity at 415 V AC. Its output is stepped up to 11.0 kV for transmission.

(a) Determine the primary to secondary turns ratio of the step-up transformer used at the power station. **(2 marks)**

Answer _____

(b) Determine the current available at the output of the step-up transformer. **(2 marks)**

Answer _____ A