Question 1 (4 marks)
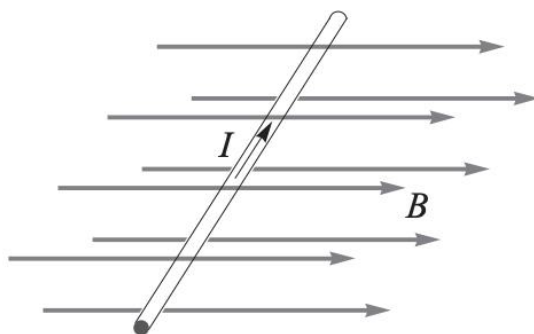

A 25.0 cm long segment of horizontal wire is perpendicular to a 3.78 mT magnetic field as shown in the diagram above. A current of 2.54 A is running through the wire.

(a)   In what direction is the force on the wire acting? Circle your answer.   (1 mark)

A. Upward

B. Downward

C. To the left

D. To the right

(b)   Calculate the magnitude of the force on the wire.   (3 marks)

Answer: _____ N