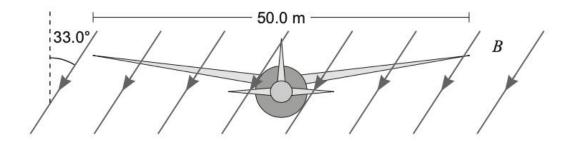
An aircraft with a wingspan of 50.0 m flies due east parallel to the Earth's surface. The Earth's magnetic field strength at that location is 5.84×10^{-5} T and it makes an angle of 33.0° to the vertical. The aircraft is travelling at 7.20×10^{2} km hr⁻¹.



(a) Using the appropriate component of the magnetic field, calculate the electromotive force (EMF) induced between the ends of the aircraft's wings. (4 marks)

Answer: ______ V

(b) A wire runs between the ends of the wings, parallel to each wing, so as to set up a complete circuit. A sensitive ammeter is placed in the circuit. If the total resistance of the circuit is $1.78~\Omega$, what will be the reading on the ammeter? (1 mark)

Answer: _____A