

Question #64951, Physics / Other

An aeroplane travels a distance of 8000 km at constant speed in 12h calculate : its speed in ms⁻¹ - the number of km travelled in 20 min - the time taken to travel 100 km

Solution

$$v = \frac{d}{t};$$

$$v = \frac{8000}{12} = 666.67 \text{ km/h} = 185.19 \text{ m/s}$$

$$d(20') = 666.67 \times \frac{1}{3} \cong 222 \text{ km}$$

$$t(100 \text{ km}) = \frac{100}{666.67} = 0.15 \text{ h} = 9 \text{ min}$$

Answer provided by <https://www.AssignmentExpert.com>