Elite private school/ Physics department

Grade 11

Worksheet #6

Acceleration

مدرسة النخبة الخاصة
ELITE PRIVATE SCHOOL

Question 1:

A plane starts from rest and accelerates uniformly over a time of 20 s for a distance of 300 m. Determine the plane's acceleration.

Question 2:

A car starts from rest and accelerates uniformly over a time of 5.21 seconds for a distance of 110 m. Determine the acceleration of the car.

Question 3:

A race car accelerates uniformly from 18.5 m/s to 46.1 m/s in 2.47 seconds. Determine the acceleration of the car and the distance traveled.

Question 4:

A plane has a takeoff speed of 88.3 m/s and requires 1365 m to reach that speed. Determine the acceleration of the plane if it start from rest and the time required to reach this speed.