1. An airplane accelerates down a runway at 3.20 m/s2 for 32.8 s until is finally lifts off the ground. Determine the distance traveled before takeoff.
2. 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.
3. A bike accelerates uniformly from rest to a speed of 7.10 m/s over a distance of 35.4 m. Determine the acceleration of the bike.
4. An engineer is designing the runway for an airport. Of the planes that will use the airport, the lowest acceleration rate is likely to be 3 m/s2. The takeoff speed for this plane will be 65 m/s. Assuming this minimum acceleration, what is the minimum allowed length for the runway?
5. A car traveling at 22.4 m/s skids to a stop in 2.55 s. Determine the skidding distance of the car (assume uniform acceleration).
6. 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 and the time required to reach this speed.
7. A motorcyclist moves with a speed of . He accelerates for 4 s with an acceleration of .   
   a.) How much will be its speed?  
   b.) How much distance will be covered?

c.) How much will be its average speed?  
d.) Create the speed-time and the acceleration time graph!

1. A car on an acceleration test attained the speed of and covered the distance of 50 m.  
   a.) How much was the time of the acceleration?  
   b.) How much was its acceleration?
2. A car moves with a speed of and brakes for 1.8 s. Its acceleration is .  
   a.) How much will be its speed?  
   b.) How much distance was covered?
3. A car moves with a speed of . The driver starts to brake and the braking distance is 50 m. How much is the acceleration?