Task #1

A car accelerates from 14 m/s to 21 m/s in 6.0 s. What is the car's acceleration?

Task #2

A world-class sprinter can reach a top speed (of about 11.5 m/s) in the first 18.0 meters of the race. What is her average acceleration? Assume she started from rest.

Task #3

A marble rolling down a track starts at rest and accelerates at a rate of $1.2\,\mathrm{m/s^2}$. How much time does it take the marble to roll **85 cm**?

Task #4

In coming to a stop, a car leaves skid marks 65 m long on the highway. Assuming a deceleration of $-4.0\,\mathrm{m/s^2}$, estimate the speed of the car just before braking.

Task #5

A car slows down from 28 m/s to rest in a distance of 88 m. What was its acceleration?