TEST 1



Velocity	Position
$v = \frac{d}{t}$	$x = vt + x_0$

Exercise 1

One says that the famous cowboy Lucky Luke shoots faster than his shadow. Knowing that the velocity of the light is 3×10^8 m/s and that Lucky Luke is 5 m from the wall, how many time does he need to trigger?

Uniform Linear Motion (ULM)



Exercise 2

Sound and light propagate at constant velocities of 343 m/s and $3 \times 10^8 \text{ m/s}$ respectively. At an outdoor show, if you are located 500 m from the stage, what will be the time lag between the vision of a pyrotechnic effect and the hearing of the noise produced by the explosion?

Exercise 3

Thomas decides to cross Canada by bike. 6200 km separate its point of departure from its point of arrival. He hopes to maintain an average velocity of 18 km/h. Knowing that he will pedal 8 hours a day, how many days will it take to complete this journey?

Exercise 4

Two athletes A and B run on a 500 m long circular track. They leave together and move at velocities of 10 m/s and 8 m/s respectively. After how many time will they be separated with exactly one lap?



Exercise 5



A train leaves from station A and goes to station B at a constant velocity of 144 km/h. At the same time, a train leaves from station B and goes to station A at a constant velocity of 90 km/h. What is the distance between the two stations if the trains intersect after 45 minutes?