

ACCELERATION

Materials

Calculator

What To Do

A roller coaster is constantly accelerating (changing its velocity) as it travels up and down and around. To calculate the acceleration of a roller coaster, divide the change in velocity by the time it takes the velocity to change.

acceleration = (final velocity - original velocity) / time

Calculate the following acceleration problem: A roller coaster's original velocity is 0 km/s and its final velocity is 30 km/s. The roller coaster ride takes 60 seconds to complete. Find the acceleration. Record your answer on your answer sheet.