

It's a Wild Ride Formula Exam

Name _____

You can use your top-tab formula book as a guide.

1. How long would it take a Coaster car to travel 500 **feet** at the rate of 80 **miles** per hour?
2. Find the momentum of a Coaster car traveling 50 km per hour having a mass of 1600 kg.
3. What is the potential energy of the coaster car when it drops from a height of 100 meters with a mass of 1600 kg, and it's acceleration is due to gravity?
4. Find the acceleration of a coaster car having a mass of 1200 kg and a force of 36,000 Newton's.
5. A coaster car has a kinetic energy value of 500,000 Joules. The mass of the car is 1,600 kg, find the velocity of the car.
6. The coaster car's velocity at the top of a hill is 45 km/hour and it's velocity at the bottom of the hill is 50 km/hr. It takes the car 4 seconds to travel the distance of the hill. What is the car's acceleration?
7. Use one of the formula's to write your own coaster problem. Provide a solution.