

Physics 30 Worksheet # 1: Momentum

1. Calculate the momentum of a 1.60×10^3 kg car traveling at 20.0 m/s.
2. Calculate the momentum of a 2.50×10^3 kg truck traveling at 110 km/h.
3. How fast is a 1.50 kg ball moving if it has a momentum of 4.50 kg.m/s?
4. A 75.0 g ball is rolling at a speed of 57.0 cm/s. Calculate the ball's momentum.
5. What is the velocity of a 200.0 kg car with a momentum of 800.0 kg m/s?
6. What are the two quantities that are needed to calculate momentum?
What is the main formula used for momentum?

You must **show all work to receive credit** for the problems above.
If you are using this as a replacement grade for a missing assignment,
it will be graded on a basis of 80% of the credit. No credit will be given
without appropriate work. Box your answers, with correct units and significant
digits.