

Calculating Kinetic Energy Worksheet

1. Kinetic energy can be defined as....
2. The unit used to measure kinetic energy is the... _____.
3. Rodger Maris swung a bat which had a mass of 2kg at a velocity of 45m/s. How many joules of kinetic energy could he give to a baseball if he hit it?
4. Barry Bonds swings a bat which has a mass of 1.5kg at a velocity of 55m/s. How many joules of kinetic energy could he give to a baseball if he hit it?
5. Looking at your answers to questions 4 & 5, which is more important to hitting a homerun, a heavier bat or a faster swing? _____
6. Tiger Woods swings his driver at a velocity of 60m/s. If the club has a mass of .75kg, how much kinetic energy can he transfer to the golf ball when it is hit?
7. Calculate the kinetic energy of a car which has a mass of 1000kg and is moving at a speed of 20m/s.
8. What is the kinetic energy of a soccer ball which has a mass of 0.8kg and is kicked to a velocity of 10m/s?
9. Saquon Barkley can run at a top speed of 9.8m/s (21mph) and has a mass of 106kg (233lb). If he was running at full speed and hit a defender, how much kinetic energy could he transfer to the defender's body?
10. Which has more kinetic energy, a train moving at .02m/s with a mass of 20,000,000kg or a truck moving at 20m/s with a mass of 36,000kg?