

Energy and Power Practice

Physics and Mathematics of Sustainable Energy

College of the Atlantic. September 7, 2018

1. An 80 kg football player runs at 5 m/s. What is his kinetic energy?
2. A 120 pound hockey player skates at 8 m/s. What is her kinetic energy?
3. A 145 g baseball is thrown at 100 mi/hr. What is the baseball's kinetic energy?
4. A heating element delivers 300,000 J of energy in 5 minutes. What is the power of the heating element?
5. A light bulb draws 40 Watts. If you leave the bulb on for 5 hours, how much energy has been consumed? Express your answer in Joules.
6. A largeish electric heater draws 2000 W. If I leave this heater on for 4 hours, how much energy has it used?
7. An electric toaster draws 1200 W. If I make toast for half an hour, how much energy has the toaster used?