

Name _____ Date _____

PHYSICS ENERGY AND POWER

Solve the physics problems below!

- 1) How high up is a 3.00 kg object that has 300. J of energy?
- 2) How high would you have to lift a 1000. kg car to give it a potential energy of:
(a) 2.0×10^4 J
(b) 2.00×10^4 J,
- 3) Calculate the potential energy of a 5.00 kg object sitting on a 3.00 meter high ledge.
- 4) A 4.00 kg rock is rolling 10.0 m/s. Find its kinetic energy.
- 5) An 8.0 kg cat is running 4.0 m/s. How much kinetic energy does it have?
- 6) Calculate the kinetic energy of a 45 gram golf ball travelling at:
(a) 20. m/s
(b) 40. m/s
(c) 60. m/s.
- 7) How fast must a 1000. kg car be moving to have a kinetic energy of:
(a) 2.0×10^4 J
(b) 2.0×10^5 J,
- 8) A 10.0 kg rock is at the top of a 20.0 m. tall hill. How much potential energy does it have?
- 9) A 25 N object is 3.0 meters up. How much potential energy does it have?