

- d. If you triple the mass of an object you _____ the amount of KE.
- e. If you double the time it takes to do a job you _____ the power.
4. How much energy do you use if you run your flat screen TV that consumes 60W of power for 3 hours?
5. During a physics lab, Jack and Jill ran up a 4 m high hill. Jack is 100kg and Jill is 50kg. Jill ascends the hill in 2 seconds, Jack takes 4 seconds.
- a. Who did the most work to store GPE?
- b. Who delivered the most power?
6. A Nerf gun uses a spring to launch a dart straight upward. The dart has a mass of 30 g and travels to a height of 2.5 m.
- a. How much gravitational potential energy does the dart have at the top of its trajectory?
- b. How fast was it going when it left the gun?
- c. If the spring is compressed by 1.5 cm, what is the spring constant?