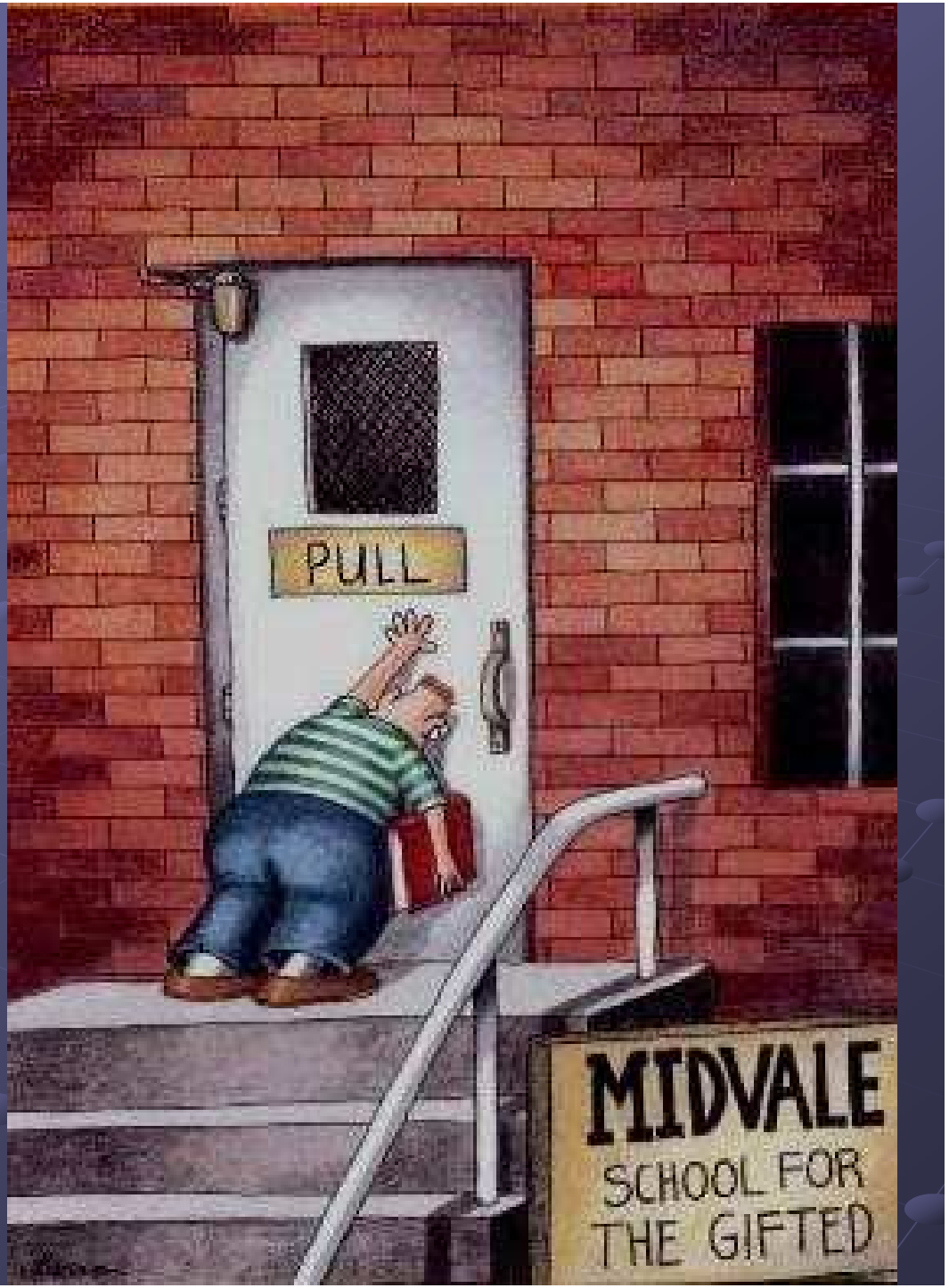
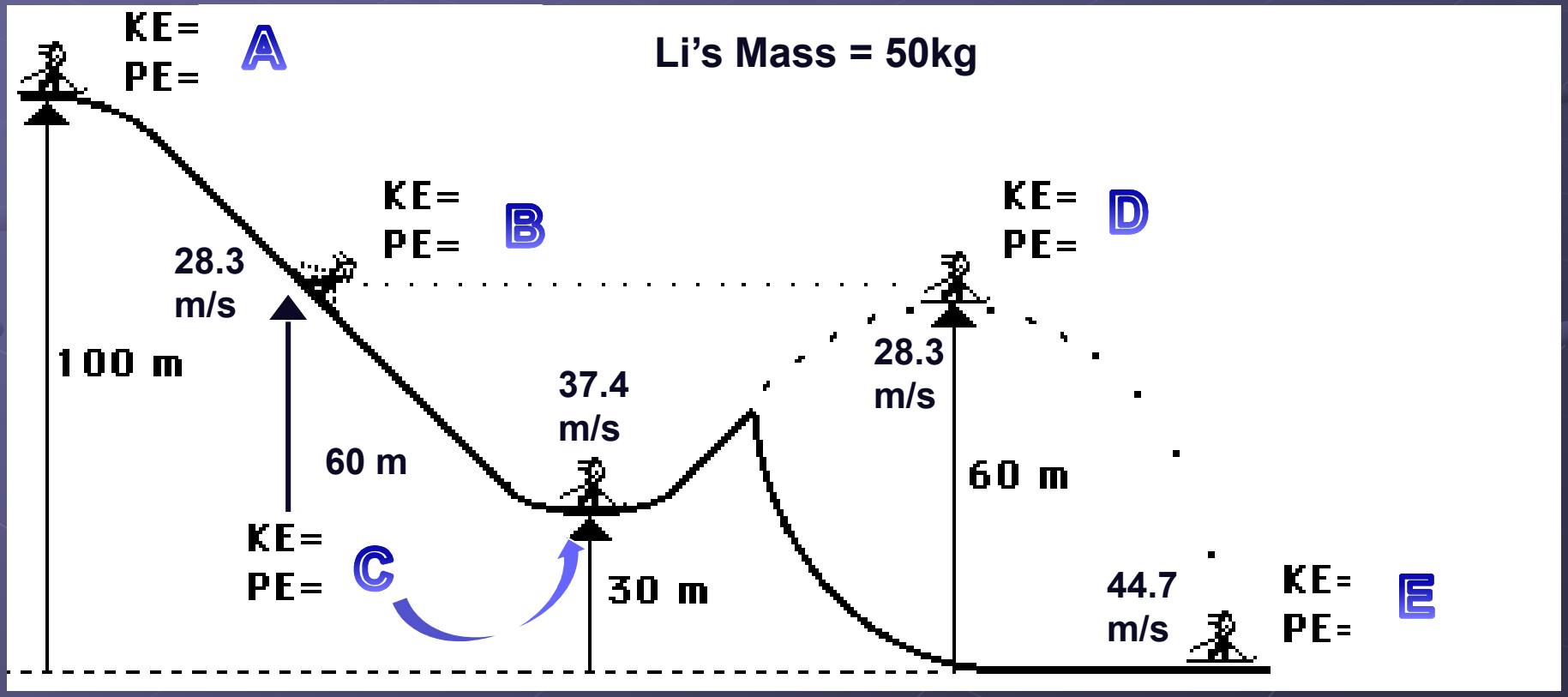
Work and Power

- Is this kid working?



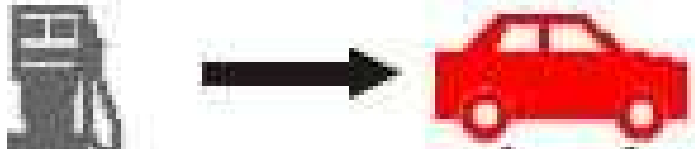
Li Ping Phar (a famous ski jumper) glides down the ski jump in an attempt to break a world record. With the information given below, calculate the Potential and Kinetic Energies at the different points



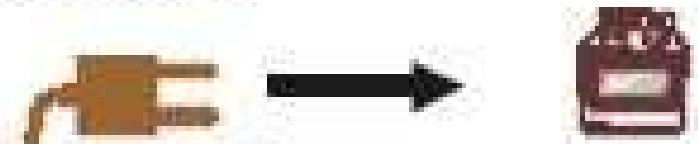
Energy Transformations

chemical → mechanical

radiant → chemical



chemical → mechanical



electrical → thermal

Grade Homework

- Take out the Energy Worksheet
- Use the red pen to correct any errors that you might have

Is this work?

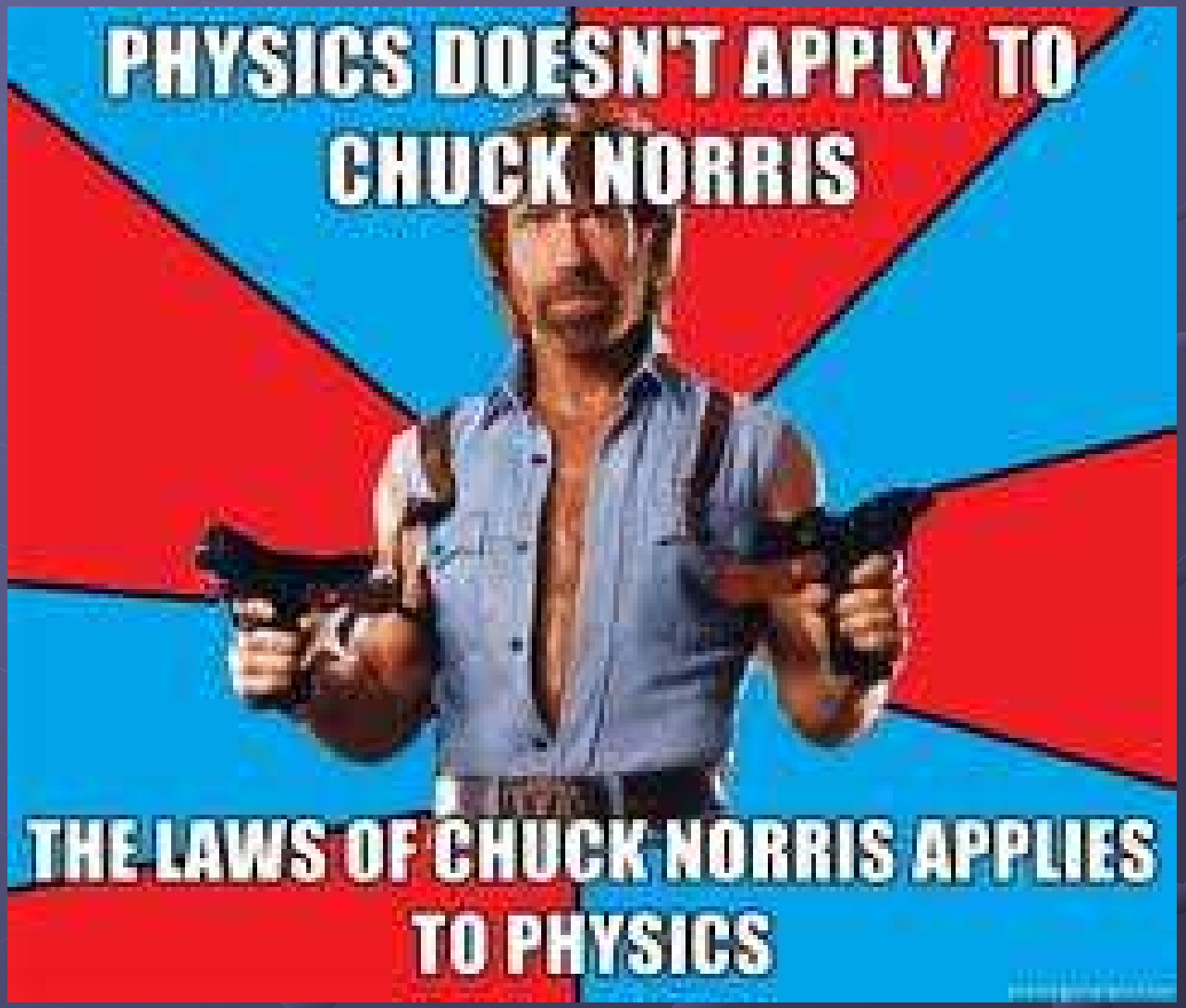
1. A teacher applies a force to a wall and becomes exhausted.

2. A book falls off a table and free falls to the ground.

3. A waiter carries a tray full of meals above his head by one arm straight across the room at constant speed.

4. A rocket accelerates through space.

What is Work?


PHYSICS DOESN'T APPLY TO CHUCK NORRIS
THE LAWS OF CHUCK NORRIS APPLIES TO PHYSICS

Work and GERC

- The formula for Work is:

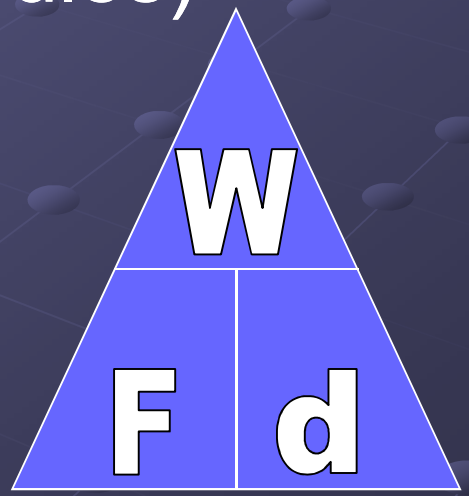
W = F * d

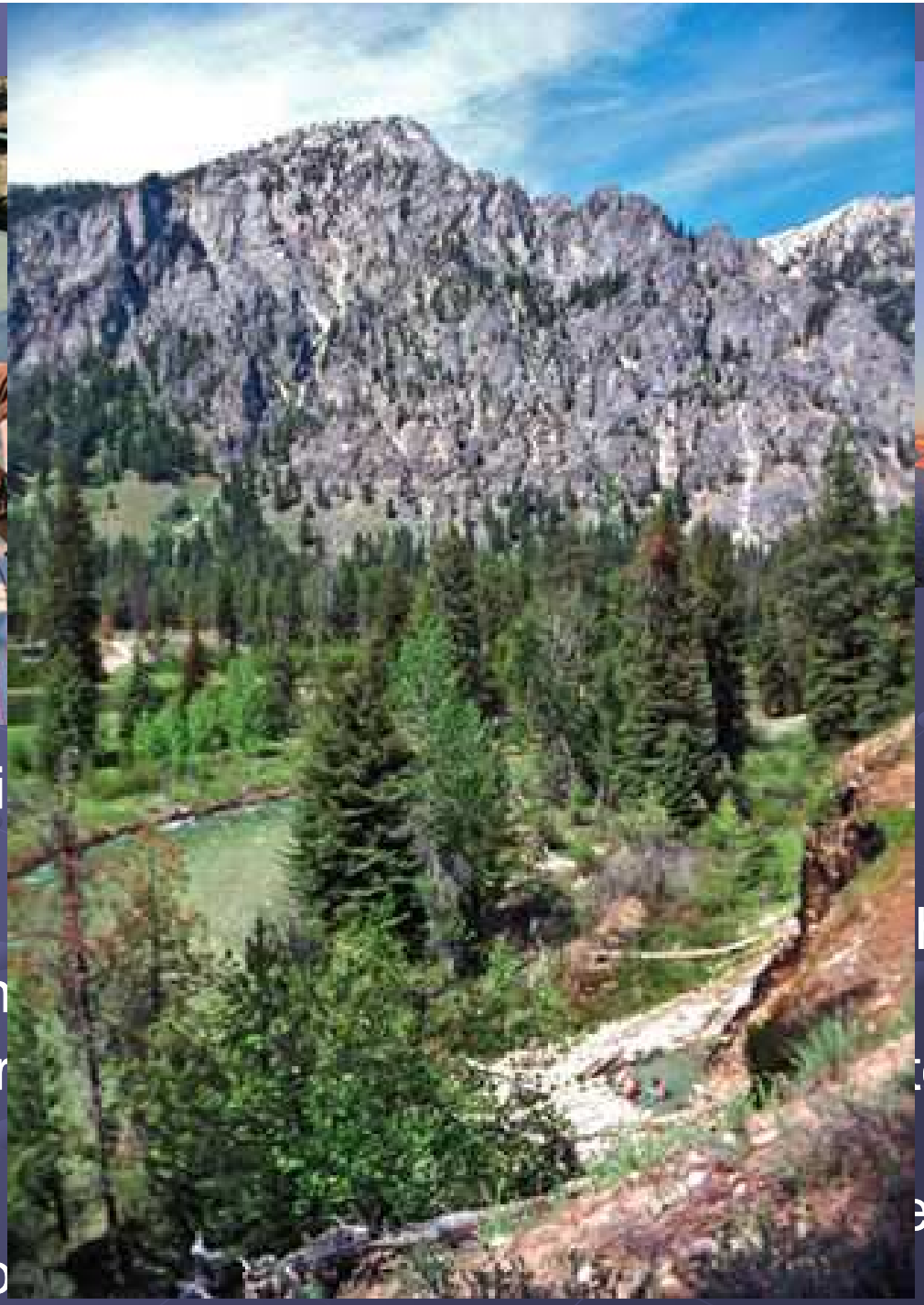
The unit for work N-m (Newton-meters) or the same as Energy (Joules)

W – Work (J)

F – Force (N)

d – distance (m)





- A rock cli to the top of Greylock
- The rock he face of the moun
- The hiker top in 3 hours
- Which of et to the top of the mo

- Two track runners are racing in the 100-meter dash
- One runner made it to the finish line in 12 seconds where the other runner made it in 14 seconds
- Which runner used more power?

What is Power?

Power and GERC

- The formula for Power is:

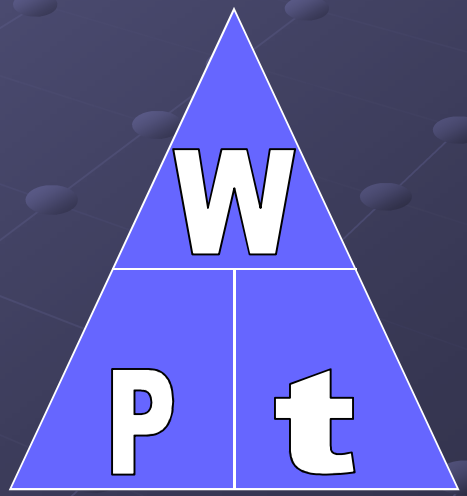
P = W / t

The unit for Power is J/s or watts

P – Power (J/s)

W – Work (J)

t – time (s)



Lab Time

- Your groups will be called out to perform the lab one at a time
- While you are waiting for your turn, complete your worksheet