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PHYS 233 01

CQ7

1. Describe a situation in which a force is exerted for a long time but does no work. Explain.

If you were to push a locked door, you are basically exerting all the energy while the door is not moving. There's no displacement when this happens so no work is done.

2. Two marbles of masses  $m$  and  $2m$  are dropped from a height  $h$ . Compare their kinetic energies when they reach the ground.

The second marble the kinetic energy doubles the first marble because the kinetic energy is corresponding to the mass.