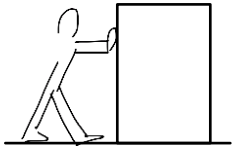
Cycle 22 Work & Energy

2 Work & Energy



The person uses 40 N of force to push the box 8 m to the right. At the same time, the box experiences 6 N of friction.

a) How much work was done by the person?
b) How much energy must the person have used up to do the work?
c) What form of energy did the person use to do the work?
d) How much work was done by friction?
e) How much Heat was generated?
f) How much KE did the box gain?

The person uses an average of 16 N of force to stretch the slingshot over the course of 0.5 m. At the same time, 2 J of heat is generated in the slingshot because it is not perfectly elastic.

a) How much work was done by the person?
b) How much energy must the person have used up to do the work?
c) What form of energy did the person use to do the work?
d) How much potential energy is actually stored in the slingshot?
e) What kind of energy is stored in the slingshot?

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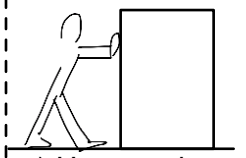
2 Work & Energy



The person uses 60 N of force to push the box 9 m to the right. At the same time, the box experiences 10 N of friction.

a) How much work was done by the person?
b) How much energy must the person have used up to do the work?
c) What form of energy did the person use to do the work?
d) How much work was done by friction?
e) How much Heat was generated?
f) How much KE did the box gain?

The person uses an average of 20 N of force to stretch the slingshot over the course of 0.4 m. At the same time, 3 J of heat is generated in the slingshot because it is not perfectly elastic.

a) How much work was done by the person?
b) How much energy must the person have used up to do the work?
c) What form of energy did the person use to do the work?
d) How much potential energy is actually stored in the slingshot?
e) What kind of energy is stored in the slingshot?