Name: _____

Period: _____

**HW—4:1 — Simple Machines**
**Mr. Murray, IPC**
**www.aisd.net/smurray**

**Assigned: Fri., 2/6/04**
**Due: Tues., 2/10/04**

Name the six simple machines:

What is the difference between a simple machine and a machine?

| Input or Output Force? |
|---|
| ____ A screw applies 24 N of force. |
| ____ You turn a screw with 6 N. |
| ____ You lift a 10 N object. |
| **Distance of Effort or Resistance?** |
| ____ You lift a box up 5 meters. |
| ____ You pull 10 m of rope from a pulley. |
| ____ You push a cart up a 8 m ramp. |

| You pull with 10 N to raise a 30 N object. Find the MA of the machine. |
|---|
| Fin = |
| Fout = |
| Equation = |
| Answer = |

**Work on back**


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Period: _____

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HW 4:1

**Don’t forget the front side**

| | |
|---|---|
| Simple machine | Distance of Effort |
| Machine | Input force |
| Distance of Resistance | Output force |

Lab questions:

Which was easier to pull, a pulley with more support ropes, or less?

If a pulley system has 10 ropes, what is it’s mechanical advantage?

As the number of support ropes increased, did you pull more rope or less through the pulley?

Anything that helps us do work with moving parts.

How much force you push with.

How far you move something with the simple machine’s help.

A machine that works with only one moving part.

How far the object would move without the machine.

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HW 4:1

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