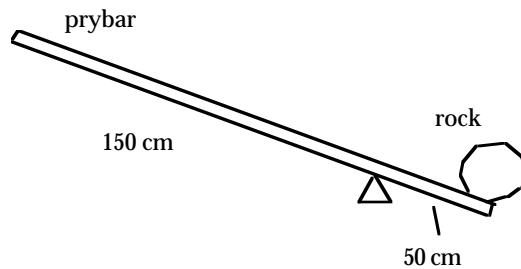
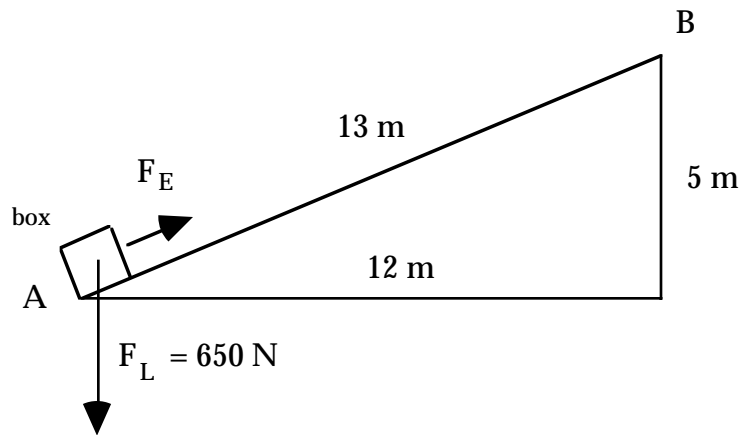


## Machines : Review/W.S.-120

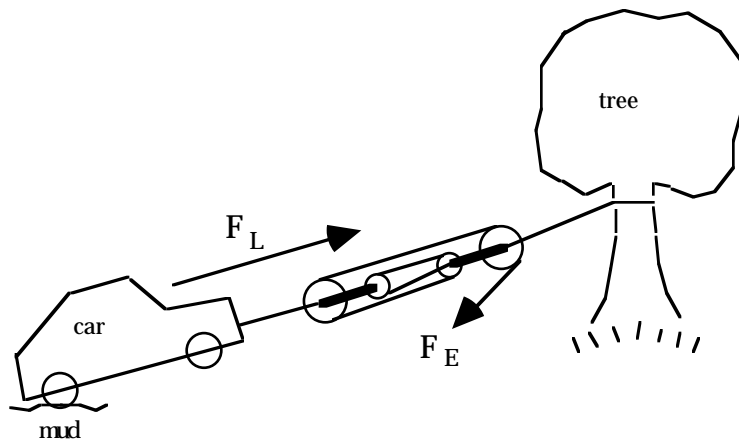
- 1) What is a machine?
- 2) Give three functions of machines.
- 3) Name the six simple machines.
- 4)a) If the effort force acting on a machine is 23 N and the load force is 115 N, what is the mechanical advantage?  
b) If the M.A. = 45 for a machine and the load force is 990 N, what is the required effort force?
- 5) Answer the following questions about the machine shown below.



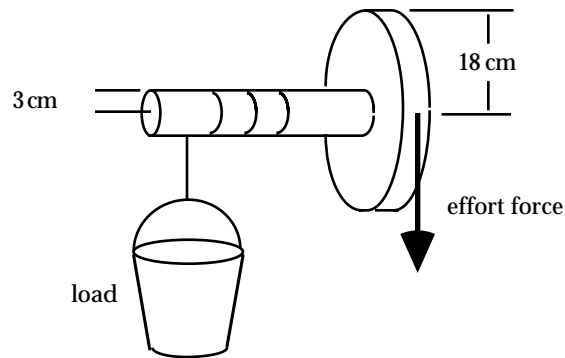
- a) This machine is a lever. Which class is it?
  - b) What is the mechanical advantage?
- 6) Answer the following questions about the machine shown below.



- a) What is the above machine called?
  - b) What is the M.A.?
  - c) What is the effort force?
  - d) How much work is done in moving the box from A to B?
- 7) Answer the following questions about the machine shown below.



- a) What is the M.A.?
  - b) If the load force is 1400 N, what is the effort force?
- 8) Answer the following questions about the machine shown below.



- a) What is the above machine called?
  - b) What is the mechanical advantage?
  - c) If the load is 150 N, what is the effort force?
- 9) In your home, there are many simple machines. Give examples of the following machines.

a) wheel-and-axle, b) lever (second class), c) screw, d) wedge.

Answers: 1) A machine is a device which helps people do work more easily., 2) A machine; increases or decreases an applied force, increases or decreases speed, or changes the direction of an applied force., 3) inclined plane, wedge, screw, lever, wheel-and-axle, pulley., 4)a) 5, b) 22 N, 5)a) first, b) 3, 6)a) incline, b) 2.6, c) 250 N, d) 3250 J, 7)a) 4, b) 350 N, 8)a) wheel-and-axle, b) 6, c) 25 N, 9)a) door knob, screw driver (used on screws), b) can opener, wheel barrow, c) wood screw, jack, d) knife blade, door stop.