

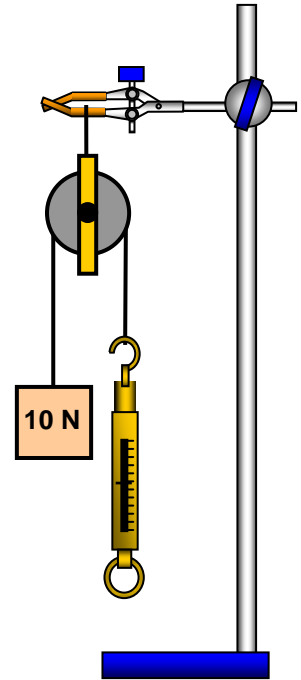
## Pulleys

### AIM

The aim of this experiment is to help you understand something about pulleys.

### YOU WILL NEED

- String
- Two single pulleys
- Two double pulleys
- Retord stand G clamp
- 1 kg mass
- A Newton meter graduated from 0 to 10N (You could use a set of slotted masses, 0-1kg in 100g steps but this is not so accurate)



### WHAT TO DO

Set up the simple one pulley system as shown. Slowly pull on the Newton meter so that the load moves up 10cm. Measure the effort needed (reading on the Newton meter) and the distance that the effort moves when the load moves up 10cm.

Record the number of pulleys and the number of ropes supporting the load.

Repeat the experiment for all the pulley systems that you can make from the four shown in the diagrams.

Number of pulleys	Number of ropes supporting the load	Load	Effort	Load/Effort	Distance effort moves (cm) (D)	D/10
1						
2						
3						
4						

### RESULTS AND ANALYSIS

Copy and complete the table shown for all the pulley systems.

Work out the two ratios (Load/Effort and Distance effort moves/10 to the nearest whole number.

