

Pre and Post Test
Pulley Power

1. Is it easier to walk a bowling ball up a flight of stairs or lift it straight up?
2. Is it possible for you to lift 1,000 pounds 100 feet straight up all by yourself?
3. Can you draw an inclined plane with a mechanical advantage of 4:1?
4. If a double pulley system moves the end of the rope 3 times farther than the weight, what is the mechanical advantage?

Answers:

1. Walking the bowling ball up the stairs is easier.
2. Yes, using a multiple wheeled pulleys in a double system.
3. The drawing should be a right triangle designating the hypotenuse as the inclined plane. The horizontal side should be the longer side and the measurement of the longer side should be 4 times that of the other side.
4. 3:1