

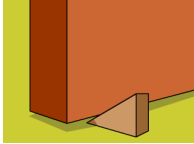
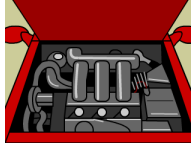


1. Which of the following is an example of a simple machine?

- A.  B. 
- C.  D. 

2. Where on a bicycle might you find a pulley?

- A. The gears
B. The handlebars
C. The seat
D. The tires

3. Let's say you were using a single-pulley system to lift a flag up a flagpole. If you wanted to raise the flag 10 meters into the air, how far would you have to move the rope?

- A. 5 meters
B. 10 meters
C. 20 meters
D. 50 meters

4. A pulley contains which other simple machine?

- A. A screw
B. An inclined plane
C. A lever
D. A wheel and axle

5. What is the effort force?

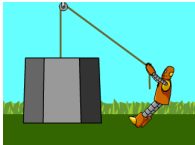
- A. The force that you apply to a simple machine
B. The weight of the load that the simple machine moves
C. The distance that the simple machine moves the load
D. The amount of effort it takes to construct a simple machine

6. What is the force exerted by the load being lifted called?

- A. The actual force
B. The resistance force
C. The effort force
D. The strong force

7. In a single pulley, what is the relationship between the effort and resistance forces?

- A. The effort force is smaller than the resistance force
B. The effort force is larger than the resistance force
C. The effort force outweighs the resistance force
D. The effort and resistance forces are equal

8.  What objects can't you lift if you're using a single-pulley system?

- A. Very large objects
B. Oddly-shaped objects
C. Very tall objects
D. Objects that are heavier than you

9. Let's say you had a pulley system with a mechanical advantage of 3. If you want to lift a boulder 10 meters off the ground, how far would you have to pull the rope?

- A. 3 meters
B. 10 meters
C. 30 meters
D. 300 meters

10. It's easier to lift heavy objects with a double-pulley system because:

- A. The effort force is twice as large as the resistance force
B. The effort force is one-half the resistance force
C. The effort force is three times as large as the resistance force
D. The resistance and effort forces are equal