



# Catapult

## Quizz and FAQ

1) Catapults were used during battles in wars, in the medieval era castles and fortified walled cities were common and catapults were used as siege weapons against them. Nowadays they are used as different devices – from a sling-shots, to entertainment and...

- devices for launching aircrafts from ships.
- devices to lift the weight loads.
- devices for navigation

2) How should you target the projectile (in what angle) to shoot it at the longest distance?

- The angle should be  $45^\circ$ .
- The angle should be  $85^\circ$ .
- The angle should be  $20^\circ$ .

3) If you want to shoot your projectile the highest is possible, the angle should be:

- greater than  $45^\circ$ .
- $45^\circ$ .
- less than  $45^\circ$ .

4) Which forces are transformed when you launch the catapult?

- Potential, elastic and kinetic energy.
- Gravitational force and kinetic energy.
- The force of friction and potential energy.



- 5) Instead of a light ball (as ping pong ball) use as the projectile something heavier, for example a stone ball.
- The projectile will go further.
  - The projectile will go equal far, no matter of the mass of the projectile.
  - The projectile will go less further.



## Answers

1) Catapults were used during battles in wars, in the medieval era castles and fortified walled cities were common and catapults were used as siege weapons against them. Nowadays they are used as different devices – from a slingshots, to entertainment and...

- devices for launching aircrafts from ships.

2) How should you target the projectile (in what angle) to shoot it at the longest distance?

The angle should be  $45^\circ$ .

3) If you want to shoot your projectile the highest is possible, the angle should be:

- greater than  $45^\circ$ . When the angle reach the  $90^\circ$ , all the energy to shoot the projectile will be used for the projectile to get as highest as possible.

4) Which forces are transformed when you launch the catapult?

- Potential, elastic and kinetic energy.



5) Instead of a light ball (as ping pong ball) use as the projectile something heavier, for example a stone ball.

The projectile will go less further.

The projectile will not go further, as it will have problems with getting up and high. The cause would be bigger gravity force of the projectile.