

Question Paper

Topic 1: Mechanics

Q1. Explain the concept of friction in mechanics. How does friction affect the motion of objects?

Answer:

Explanation: Friction is the force that opposes the motion of one surface over another. It can cause objects to slow down or come to a stop. Friction can also help objects move, such as in the case of walking or driving a car.

Q2. Describe the difference between static friction and kinetic friction. Provide examples to illustrate each type of friction.

Answer:

Explanation: Static friction occurs when an object is at rest and is trying to be moved. Kinetic friction occurs when an object is already in motion. An example of static friction is trying to push a heavy box that won't budge. An example of kinetic friction is the resistance experienced when sliding a book across a table.