

# Fundamentals of Motion and Machines

Physics · Answer Key · 9 Questions

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## 1. What is translational motion?

- A) Movement around a fixed axis
- B) Movement in a straight or curved path**
- C) Movement using a motor
- D) Movement of molecules

## 2. In translational motion, how do points on the body move?

- A) In different directions
- B) In circular paths
- C) The same distance in the same direction**
- D) At random speeds

## 3. What defines rotational motion?

- A) Movement in a straight line
- B) Movement around a fixed axis**
- C) Movement without changing position
- D) Movement through a vacuum

## 4. What is a simple machine?

- A) A machine with two or more parts
- B) A device using one basic mechanism to make work easier**
- C) A complex engine
- D) A machine that requires electricity

## 5. What is a compound machine?

- A) A machine that never breaks
- B) A machine made of two or more simple machines**
- C) A machine that uses only one mechanism
- D) A machine that is very small

## 6. Which simple machine is used to cut through materials?

- A) Pulley
- B) Lever
- C) Wedge**
- D) Wheel and axle

**7. What is the formula for Mechanical Advantage (MA)?**

**A) Output force divided by input force**

B) Input force divided by output force

C) Output work times input work

D) Input force minus output force

**8. What does efficiency measure in physics?**

A) The speed of a machine

B) The size of a machine

**C) How well input work converts to output work**

D) The total weight of a machine

**9. What is the correct formula for efficiency?**

A)  $(\text{Input work} / \text{Output work}) * 100$

**B)  $(\text{Output work} / \text{Input work}) * 100$**

C) Output force \* Input force

D) Input work - Output work