

# Gravitation Test

Name: \_\_\_\_\_

Multiple choice questions. Mark with a cross (x) the right answer.  
More than one answers are right.

## 1. The gravity force between 2 objects depends from the

a. Mass of this objects	<input type="checkbox"/>	b. The air quality between this two objects	<input type="checkbox"/>
c. The distance between this objects	<input type="checkbox"/>	d. The temperature of this two objects	<input type="checkbox"/>

## 2. What will happen with the gravity force between 2 objects when we double their distance.

a. The force will decrease half times	<input type="checkbox"/>	b. The force will increase double times	<input type="checkbox"/>
c. The force will be the same	<input type="checkbox"/>	d. The force will decrease 4 times	<input type="checkbox"/>

## 3. What will happen with the gravity force when we double the mass of the one object

a. The force will decrease half times	<input type="checkbox"/>	b. The force will increase double times	<input type="checkbox"/>
c. The force will be the same	<input type="checkbox"/>	d. The force will decrease 4 times	<input type="checkbox"/>

## 4. What will happen with the gravity force when we double both masses of the objects

a. The force will decrease half times	<input type="checkbox"/>	b. The force will increase double times	<input type="checkbox"/>
c. The force will be the same	<input type="checkbox"/>	d. The force will increase 4 times	<input type="checkbox"/>

## 5. What did Henry Cavendish discover?

a. The black holes	<input type="checkbox"/>	b. Air is a mixture of different elements	<input type="checkbox"/>
c. The orbit of the planets	<input type="checkbox"/>	d. The magnitude of gravitational force between 2 masses that weight 1 kg in an distance of one metre.	<input type="checkbox"/>

**Please answer in few words this questions**

**6. Why does the earth not fall down?**

**7. Why does the water of our oceans not swim away from our planet?**

**8. An object with the mass of 1 kg falls down to earth. How much is the gravity force that acts on this object?  
( $g=9.8 \text{ m/s}^2$ )**

**9. What will happen to you, if the mass of the earth increases?**

**10. What is a black hole?**

**11. When  $G$  was first measured by Henry Cavendish, his experiment was called the "weighting the earth experiment". Why?**

**12. Write down the formula for the gravity force between two objects.**