

Answer on Question #47782, Physics, Other

What will happen to the acceleration of a freely falling body if its mass is doubled?

Solution:

Objects that are said to be undergoing free fall, are not encountering a significant force of air resistance; they are falling under the sole influence of gravity.

Under such conditions, all objects will fall with the same rate of acceleration, regardless of their mass.

The acceleration of a free-falling object (on earth) is 9.8 m/s^2 .

Answer: acceleration stays the same.