



# SS Physics I

## Galileo's Gravity Experiment Apollo 15 Experiment

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## Apollo-15 Mission Commander



Dropping the Hammer and Feather (falcon) –

Galileo's Gravity Experiment /Apollo-15 EVA-3

Well, in my left hand,

I have a (1) ;

in my right hand,

a (2) .

And I guess one of the reasons we got here today was because of a gentleman named (3) , a long time ago, who made a rather (4)  discovery about (5)  objects in (6)  fields.

And we thought  
where would be a better place  
to confirm his findings than  
on the (7) .

And so we thought  
we'd try it here for you.  
The feather happens to be,  
appropriately,  
a falcon feather for our Falcon.

And I'll (8)  the two of them  
here and,  
hopefully,  
they'll hit the ground  
at the (9)  time.

(How about that!)

Which proves  
that Mr. Galileo was  
(10) : in his findings.





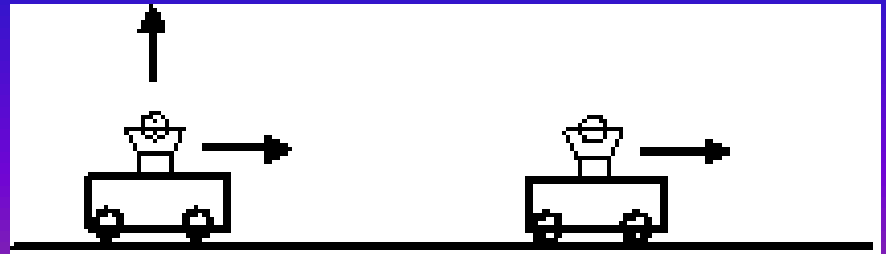
# Experiment 1

If the cart is at rest, the launched ball lands on the cart.

If the cart moves at a constant velocity and the ball is launched, where will the ball land with respect to the cart?

1. The ball lands on the cart.
2. The ball lands behind the cart.
3. The ball lands ahead of the cart.

→(11)



# Experiment 1

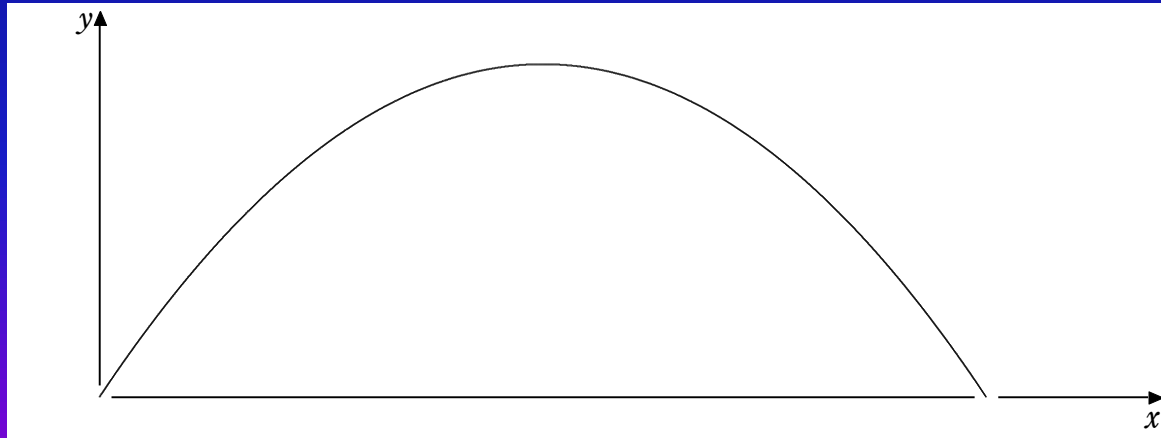
What is the motion of the ball?

→(12) \_ motion or (13) \_ motion.

What force acts on the ball while it is in the air?

→Only (14) \_ acts on it vertically.

(15) \_ acts on it horizontally.



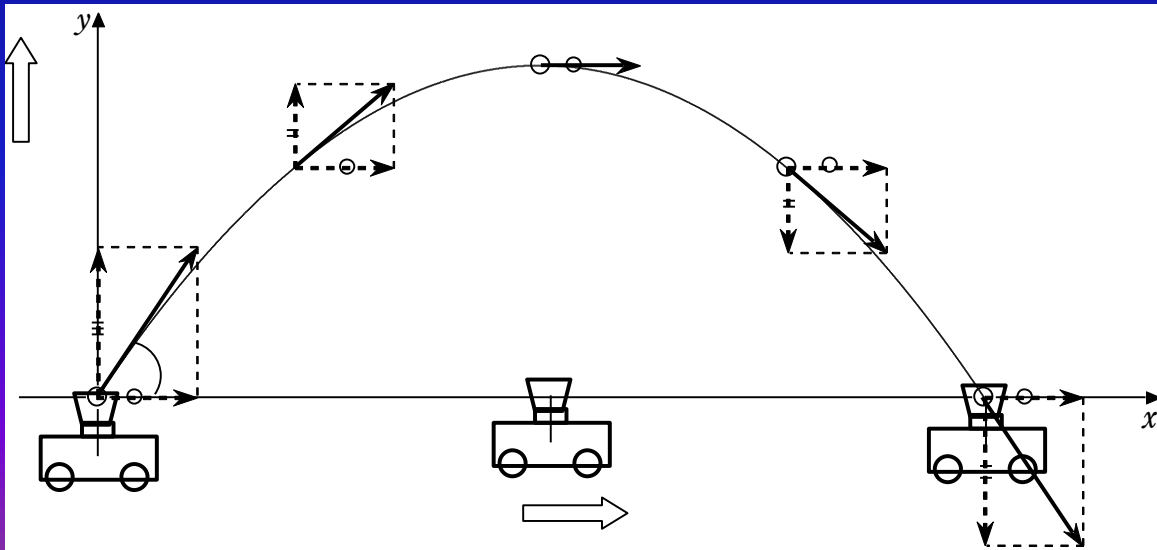
# Experiment 1

What are the horizontal motion and the vertical motion of the ball in the air?

→ Horizontal motion is a (16)  speed motion.

So both the cart and the ball move horizontally at the (17)  speed.

Vertical motion is like a (18)  fall.





# Experiment 2

Make a few sentences about the Experiment 2.

Keywords: Inertia, Rest, Motion, Newton's First Law, Forward, Constant Velocity

