

P,V,A Types of Possible Questions

1. Initial Position, Velocity and Acceleration

Plug zero in for x (or t)

Because you are talking about 0 seconds.

2. Max Height (for projectiles)

Set velocity equal to zero (this gives you time).

Because the velocity is going from positive to negative (or vice versa)

Then plug time into position.

3. Impact Velocity

Set the height = 0 and solve for x (or t).

The height is zero because it is hitting the ground.

Then plug time into velocity

4. When is the object at rest? (Same as max height)

Set velocity = 0 and solve for x (or t)

Because velocity is speed or movement and if it is zero then the object is not moving. Or the velocity is going from positive to negative or vice versa.

5. What is the velocity when the position is -20.7ft

Set position equal to the value and solve for x (or t)

Plug time into velocity

6. Position, Velocity and Acceleration at 4.5 sec

Plug time into each equation.

7. Total Distance

Start (time = 0)

Turn Around (set $v(t)=0 \rightarrow$ solve for $t \rightarrow$ plug into position)

End (for projectiles the position is 0, for horizontal use the given time to find position)

Calculate the distance for each section then add them all together

8. Displacement

Start (time is 0)

End (use given time to find position)

Compare start and end (make sure to say, "to the left/right" or "above or below")