

**➤ Main Ideas, Key Points, Questions:**

*After watching the video segment, write down key points, main ideas, and big questions.*

**➤ Objective(s):**

- *Differentiate between and give examples of average acceleration, constant acceleration, and instantaneous acceleration.*
- *Use constant acceleration kinematics equations to solve for displacement, initial velocity, final velocity, time, or acceleration based on given and unknown quantities.*

**➤ Notes:**

*During the video segment, use words, phrases, or drawings to take notes.*

**➤ Summary:**

*After watching the video segment, write at least three sentences explaining what you learned. You may ask yourself: "If I was going to explain this to someone else, what would I say?"*

**Answer the following.**

1. Define acceleration in your own words.

---

2. What kind of quantity is acceleration? What information must we include when describing an object's acceleration?

---

---

3. Fill in the equation for average acceleration below:

average acceleration = \_\_\_\_\_

4. What are the units for acceleration?

5. What are the three ways that acceleration can occur?

---

6. What is an object doing if its initial velocity and acceleration are in the same direction?

---

7. What is an object doing if its initial velocity and acceleration are in opposite directions?

---

**Answer the following.**

**8. Define the following types of acceleration:**

- **constant acceleration:**

---

- **instantaneous acceleration:**

---

- **average acceleration:**

---

**9. How do initial velocity and final velocity differ?**

---

---

**10. List the four constant acceleration kinematics equations below:**