

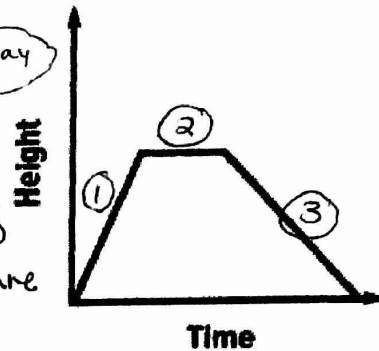
Homework: Introduction to Qualitative Graphs
(video lesson)

Name: _____

1. The graph at the right displays the height of an airplane. Describe the change in the airplane's height over time.

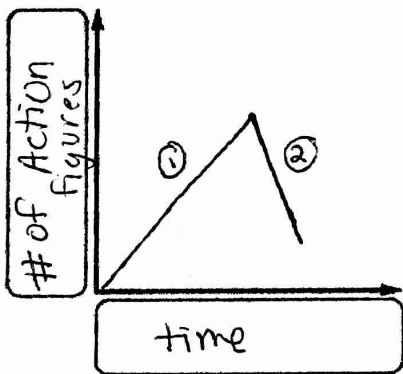
Answers may vary

When the airplane begins to take off, the height ^① increases at a constant rate of change. The plane levels ^② off at same altitude. When the plane begins to descend, it descends at a ^③ slower rate than which it ascended.



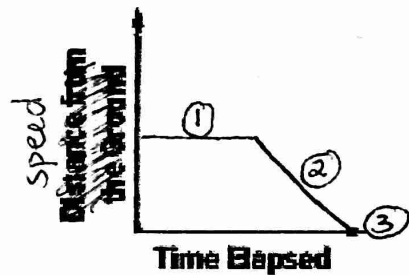
2. Jamaal purchased the same number of ^① action figures daily for one week. Over the next week, he sold most of them on the Internet. Sketch a qualitative graph to represent the situation.

NOT all



shouldn't touch bottom

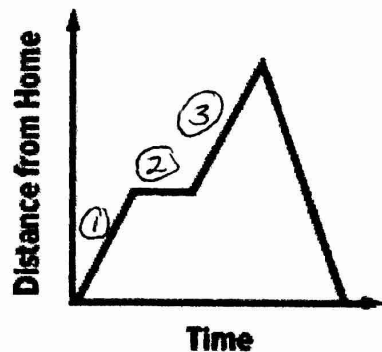
3. Sketch a qualitative graph to represent a car traveling at a constant speed and then slowing down steadily to come to stop at a stop sign.



4. The graph to the right displays the distance Luis' home as he walks his dog in his neighborhood. Describe the change in the distance from his home over time.

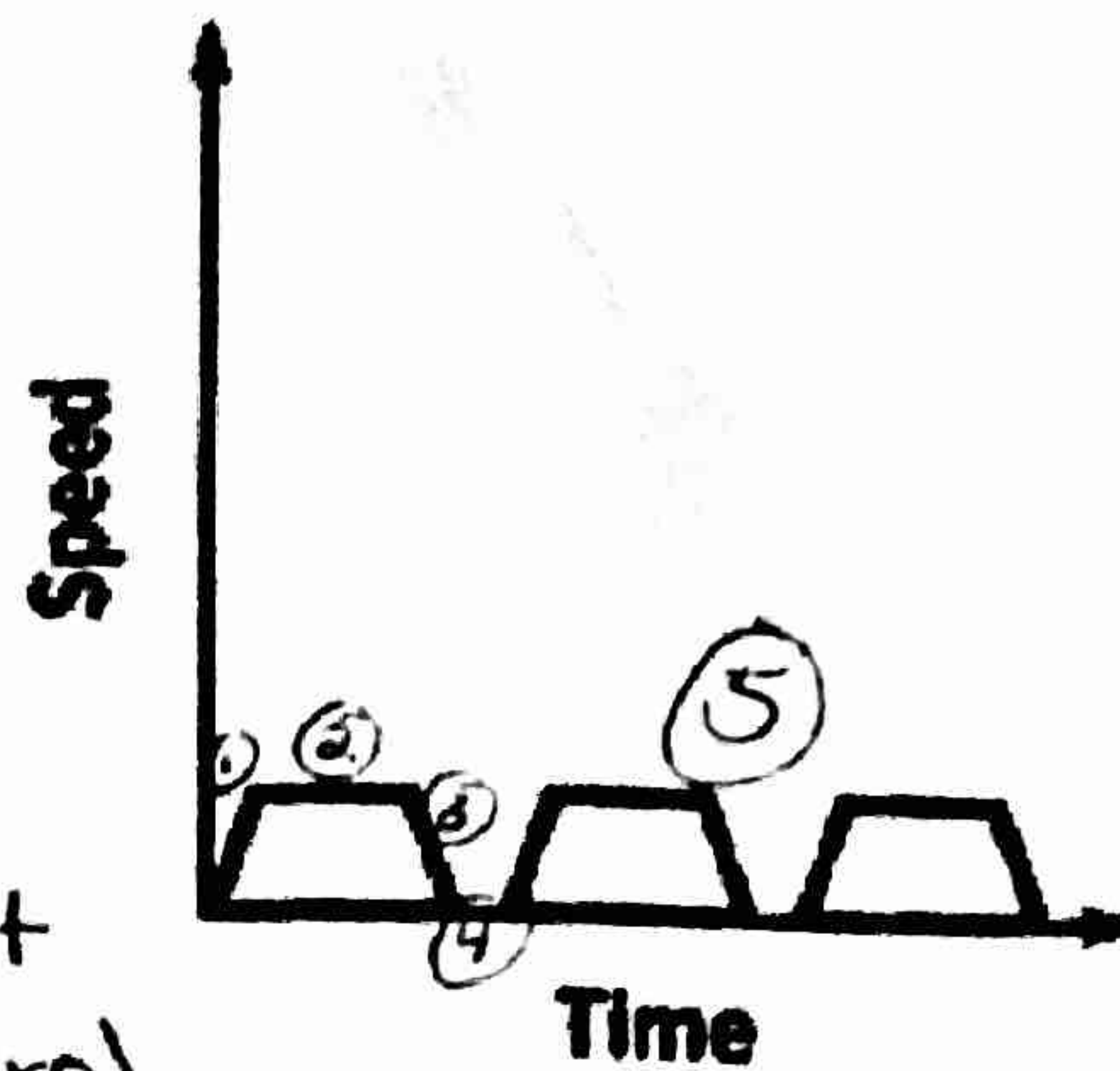
Answers may vary

- ① Luis starts from home and walks away at a constant rate. He
- ② stops to let the dog run around.
- ③ the dog runs in direction away from home as Luis heads after him.
- ④ Luis catches up w/ his dog and begins to quickly walk him home.



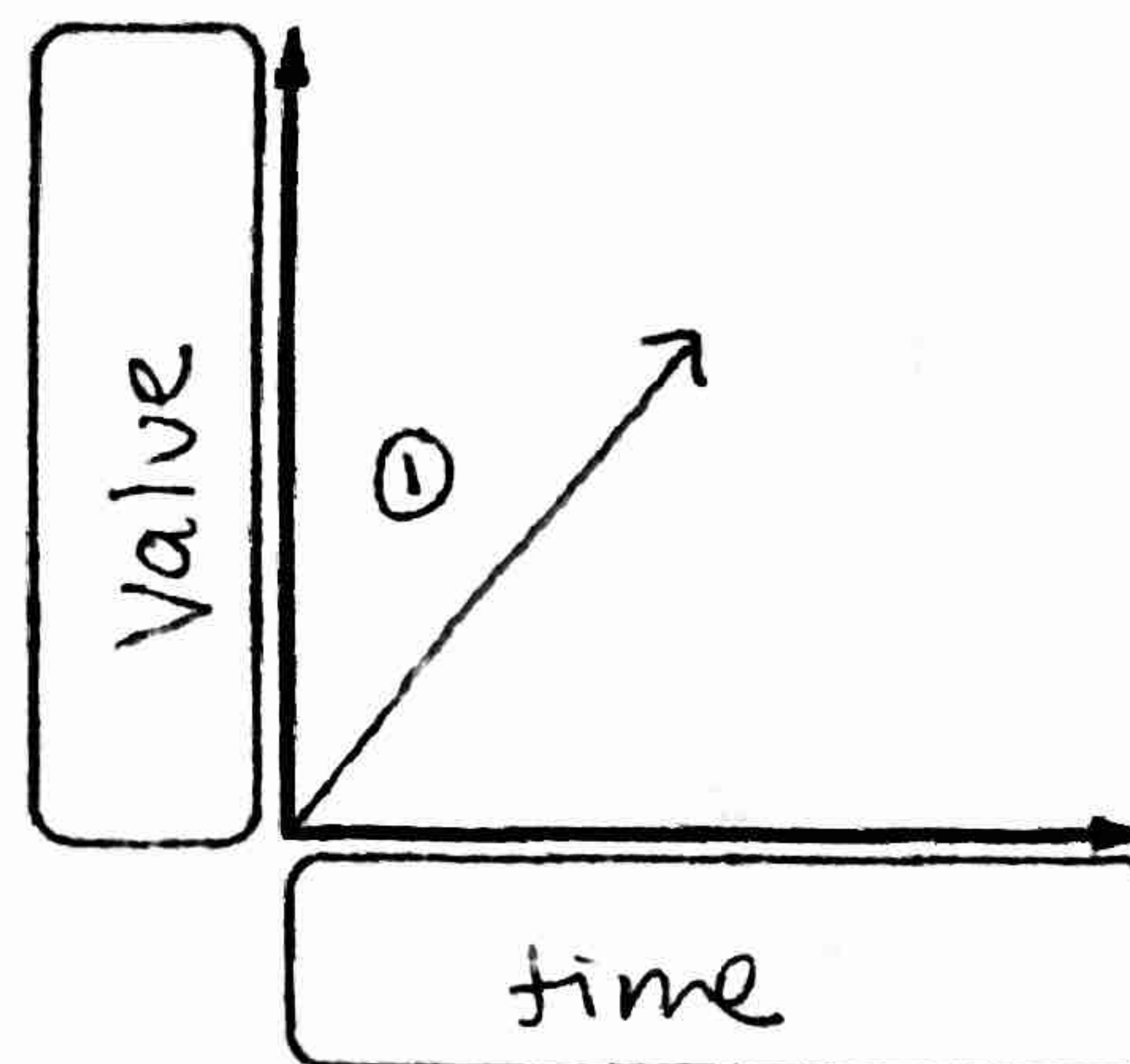
5. The graph below displays the speed of a city bus as it stops frequently to pick up passengers. Describe the change in the speed over time.

The speed of the bus increases at constant rate until it reaches speed limit and remains the same speed. The bus slows down until it reaches the bus stop. As passengers enter/exit bus, the bus remains stopped (zero). The pattern continues over the rest of the route.



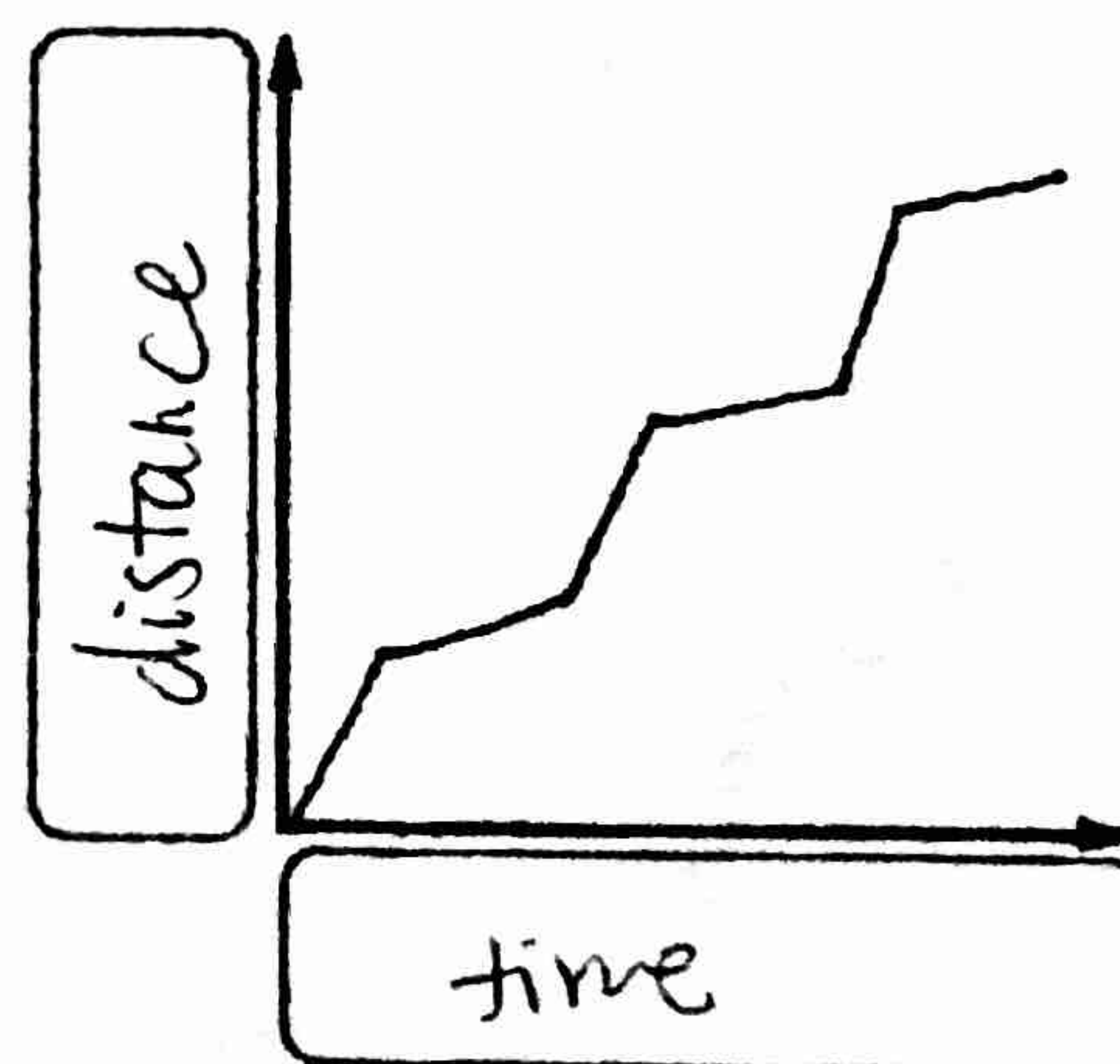
6. A grand piano that is 100 years old has increased in value rapidly from when it was first purchased. Sketch a qualitative graph to represent this situation.

* increased rapidly (steeper line)



7. An athlete alternates between running and walking during a workout. Sketch a qualitative graph to represent this situation

* running is steeper line than walking... but distance is still increasing



or

* running to walking is quick transition but not instant. walking to running is more gradual.

