Do Now

- Check the homework.
- Get a whiteboard.
- Write the type of problem that you would like to see solved during the review today.

Rob is __ feet __ inches tall. How many meters tall is he? 1in = 2.54cm

How many micrometers are in ___ terrameters?

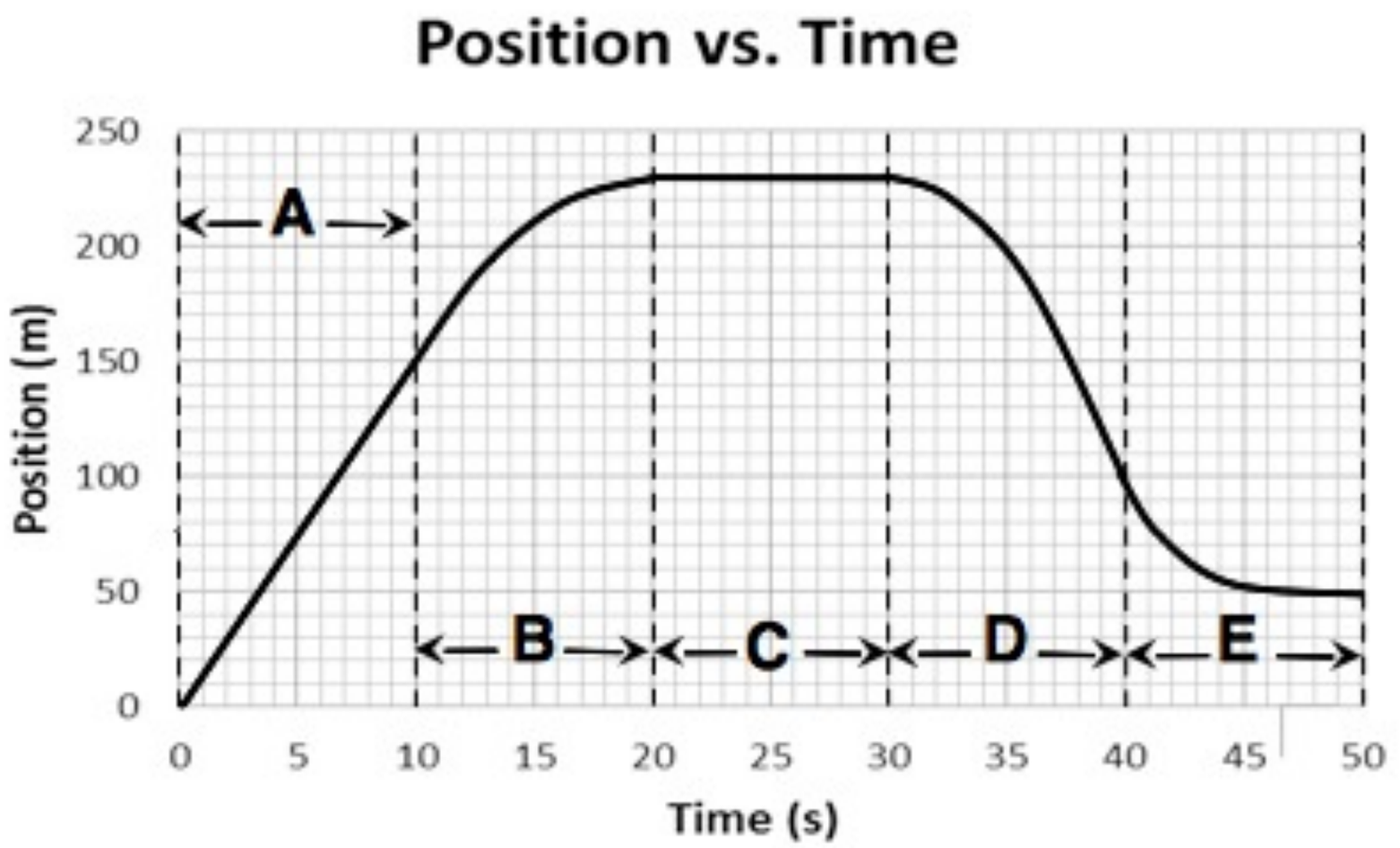
A classroom has a volume of ____m^3.
What is the volume in cm^3?

Fill in the blank

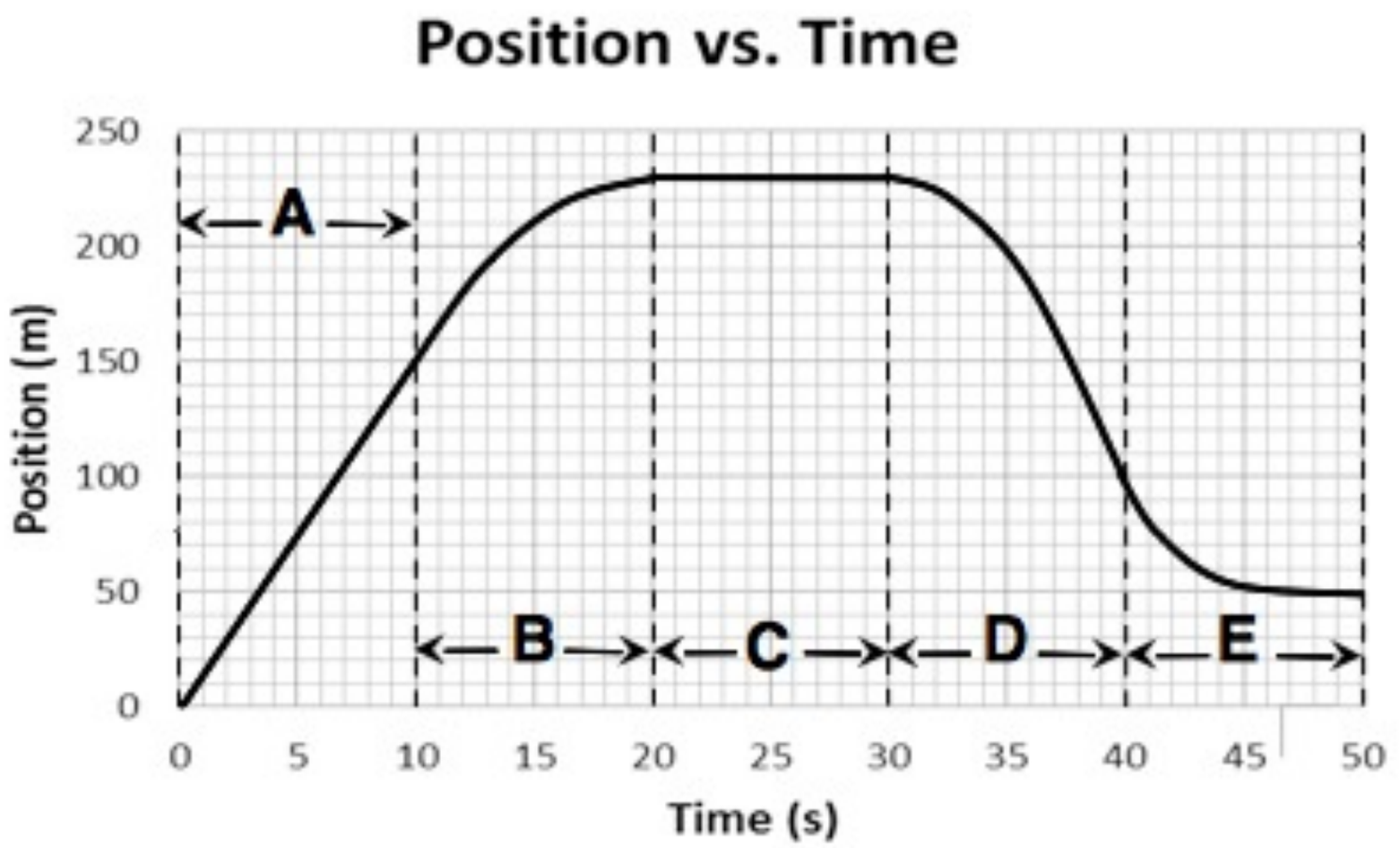
- The slope on a Position vs. Time graph indicates _____.
- The slope on a Velocity vs. Time graph indicates _____.

Fill in the blank

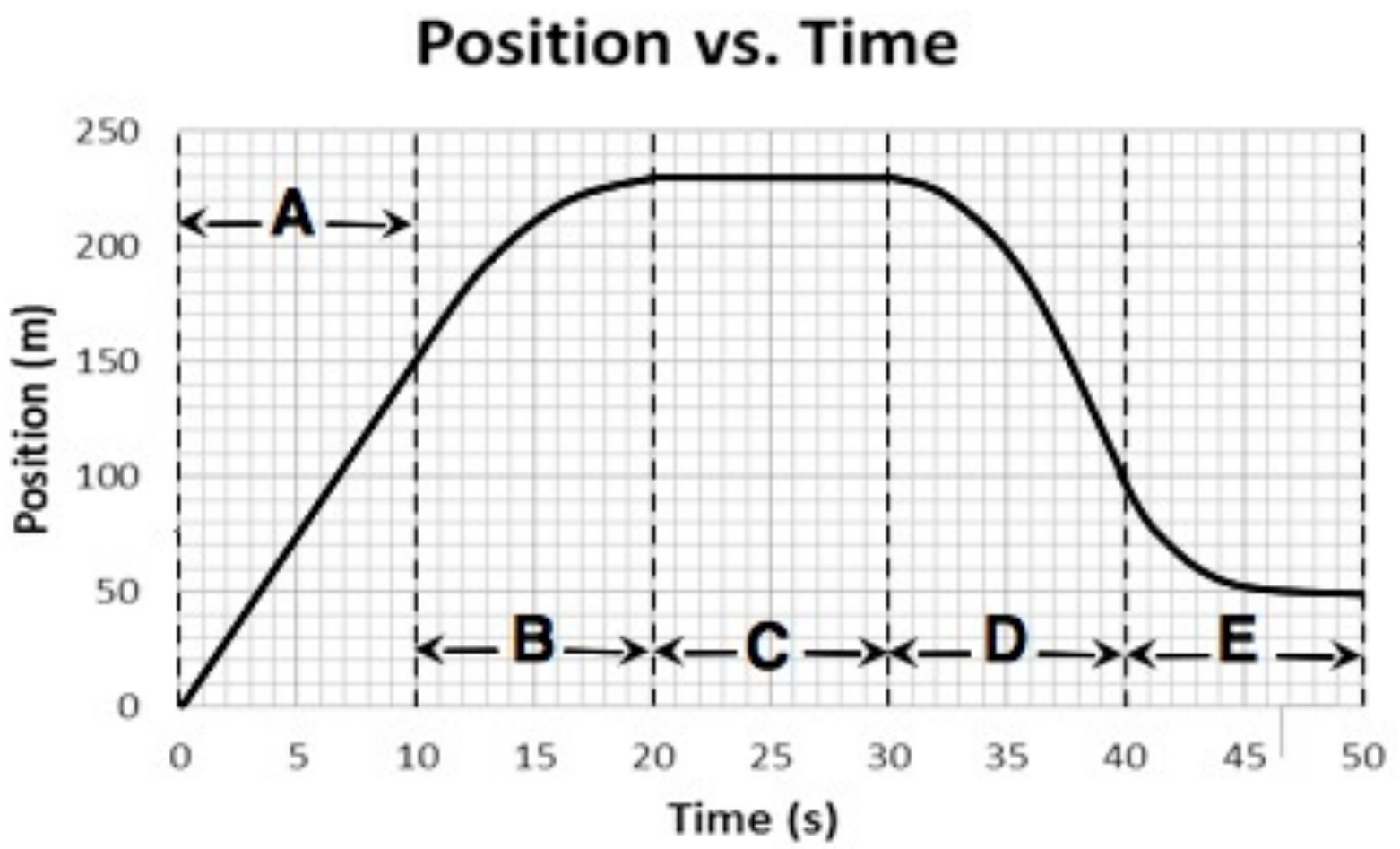
- The area between the curve of velocity (on a Velocity vs. Time graph) and the horizontal axis indicates _____.
- The difference between a vector and a scaler is that a vector requires both _____ and _____ to fully describe it.



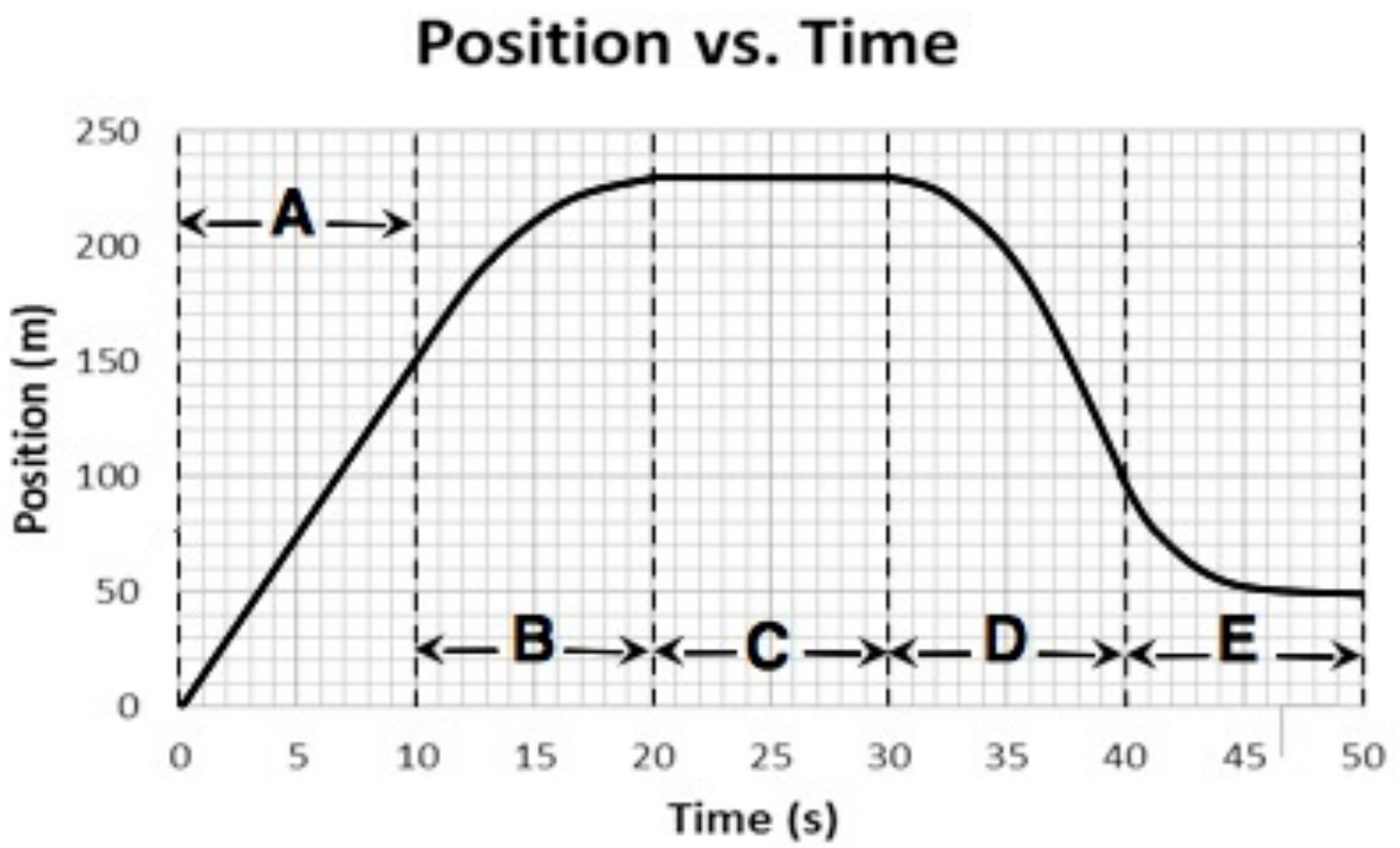
From 0 to 10 seconds, the unicyclist is _____ in the _____ direction.



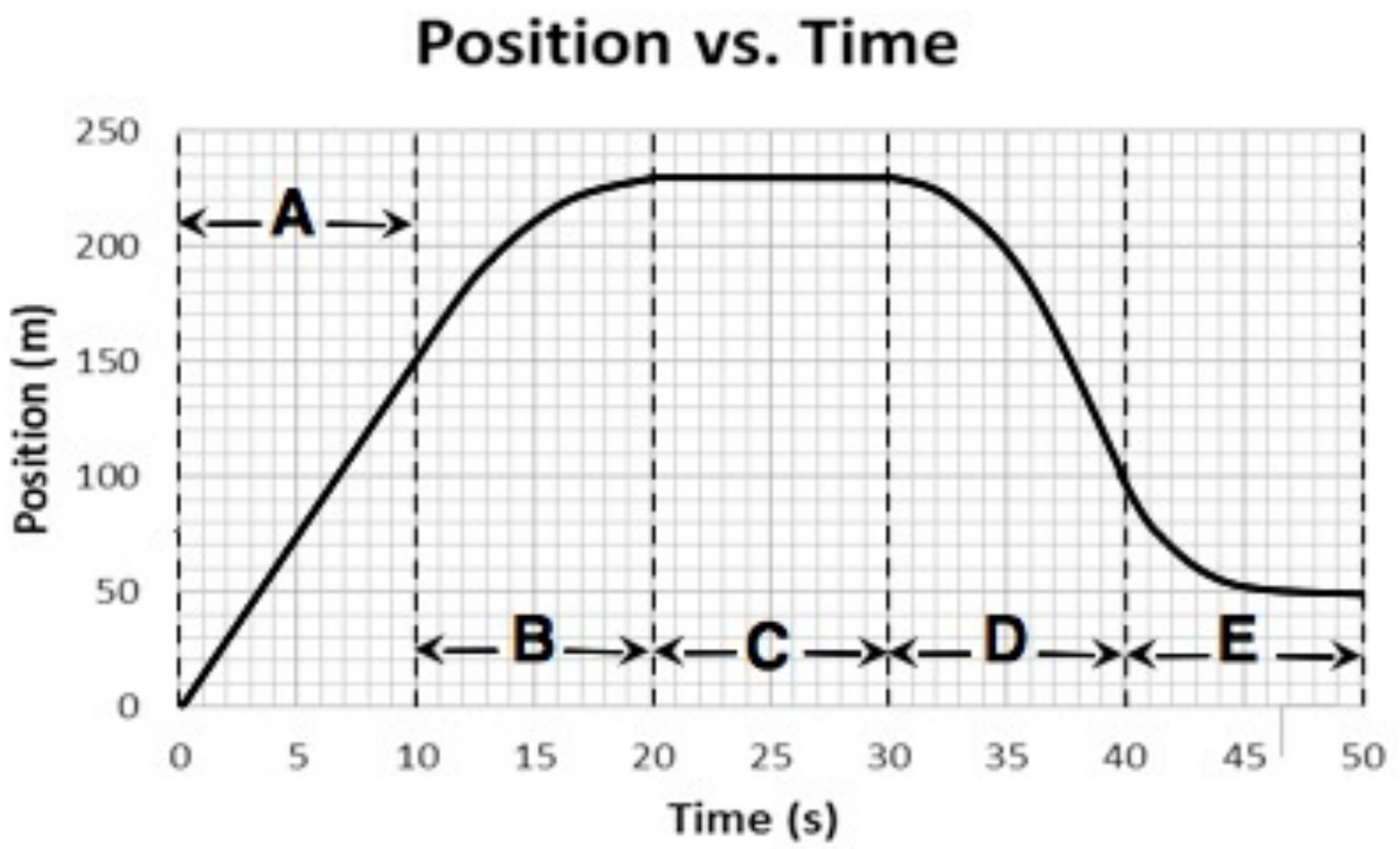
From 10 to 20 seconds, the unicyclist is _____ in the _____ direction.



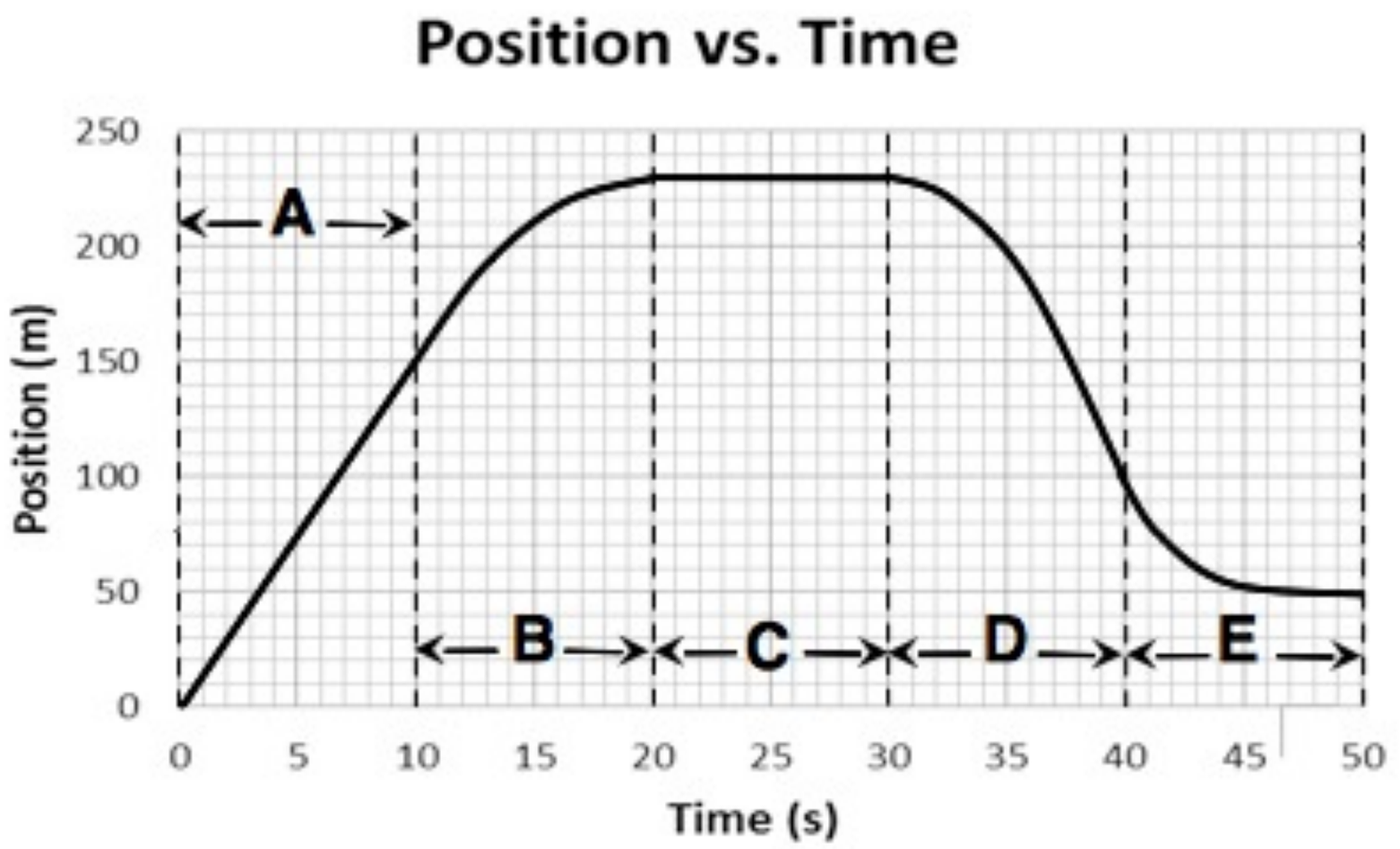
From 20 to 30 seconds, the unicyclist is _____ in the _____ direction.



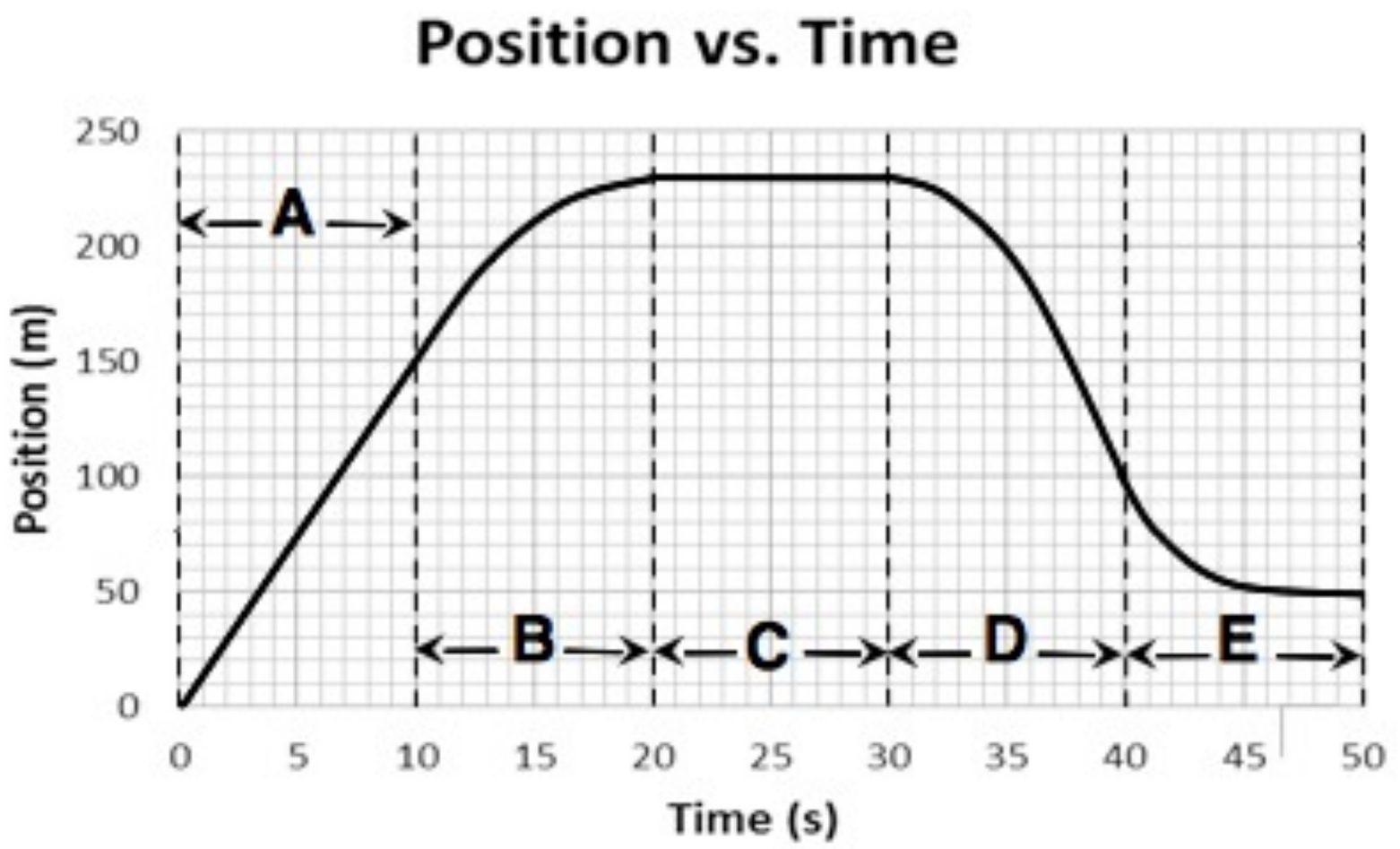
From 30 to 40 seconds, the unicyclist is _____ in the _____ direction.



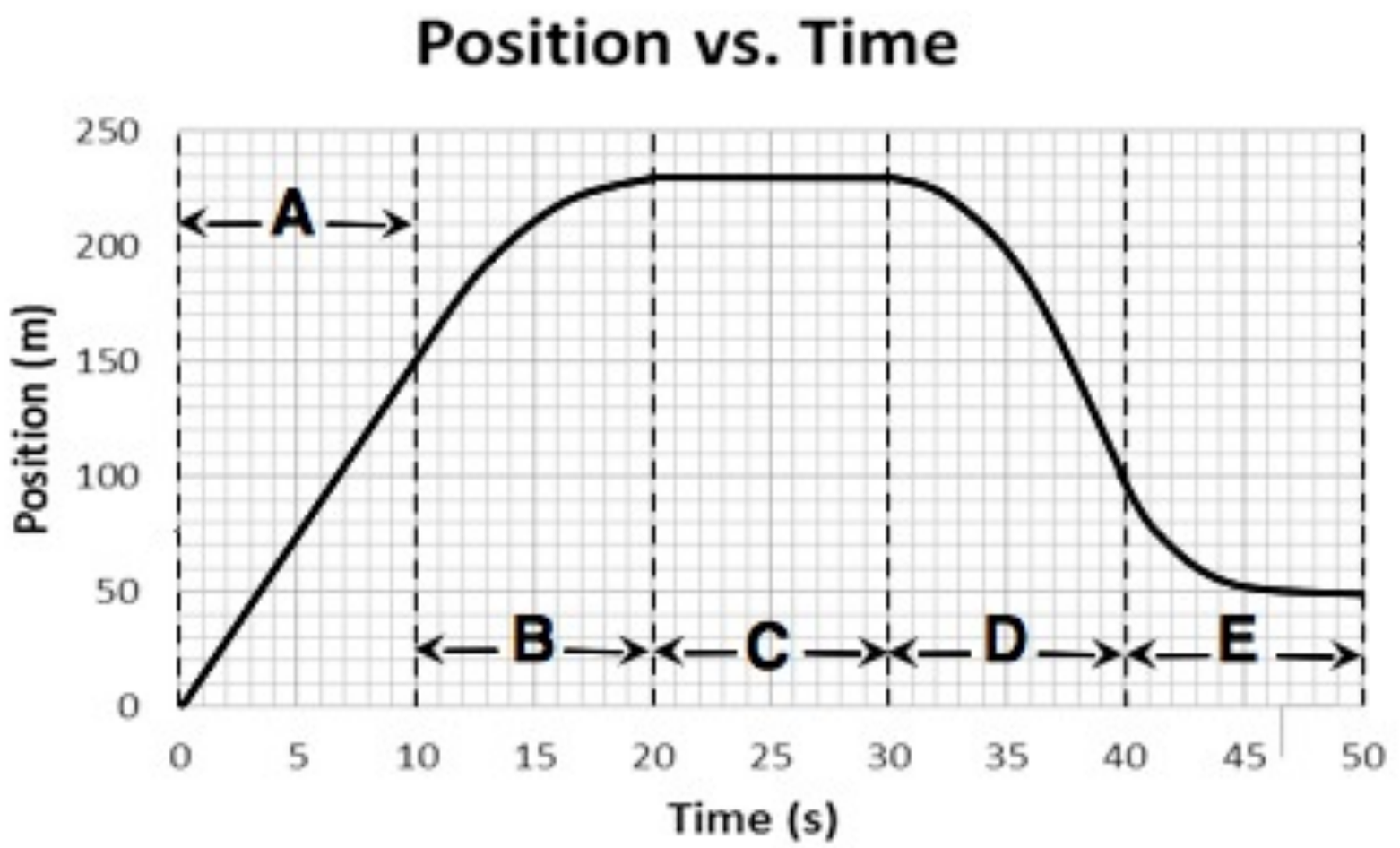
From 40 to 50 seconds, the unicyclist is _____ in the _____ direction.



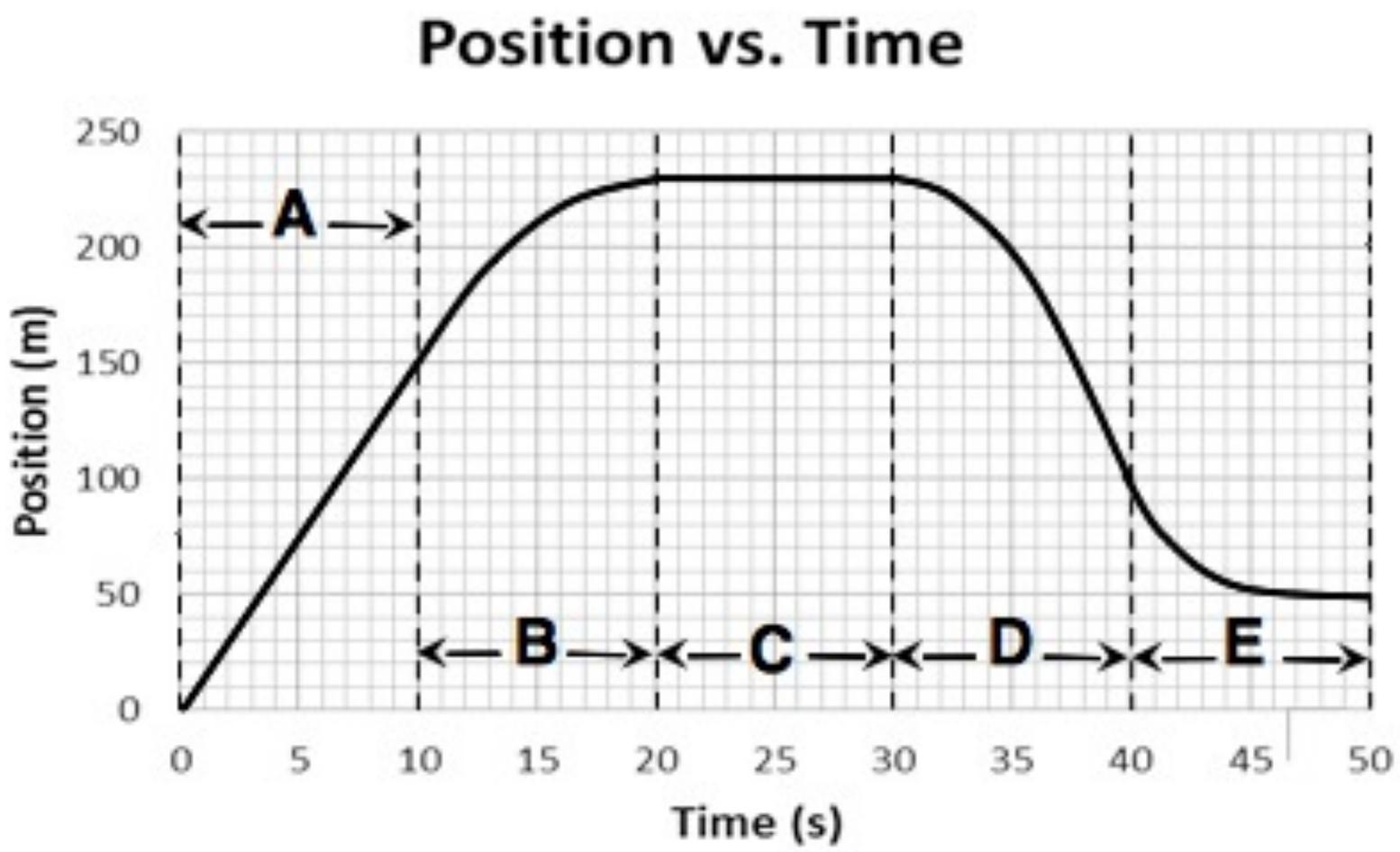
What is the average velocity of the unicyclist from t = 30 to 40 seconds?



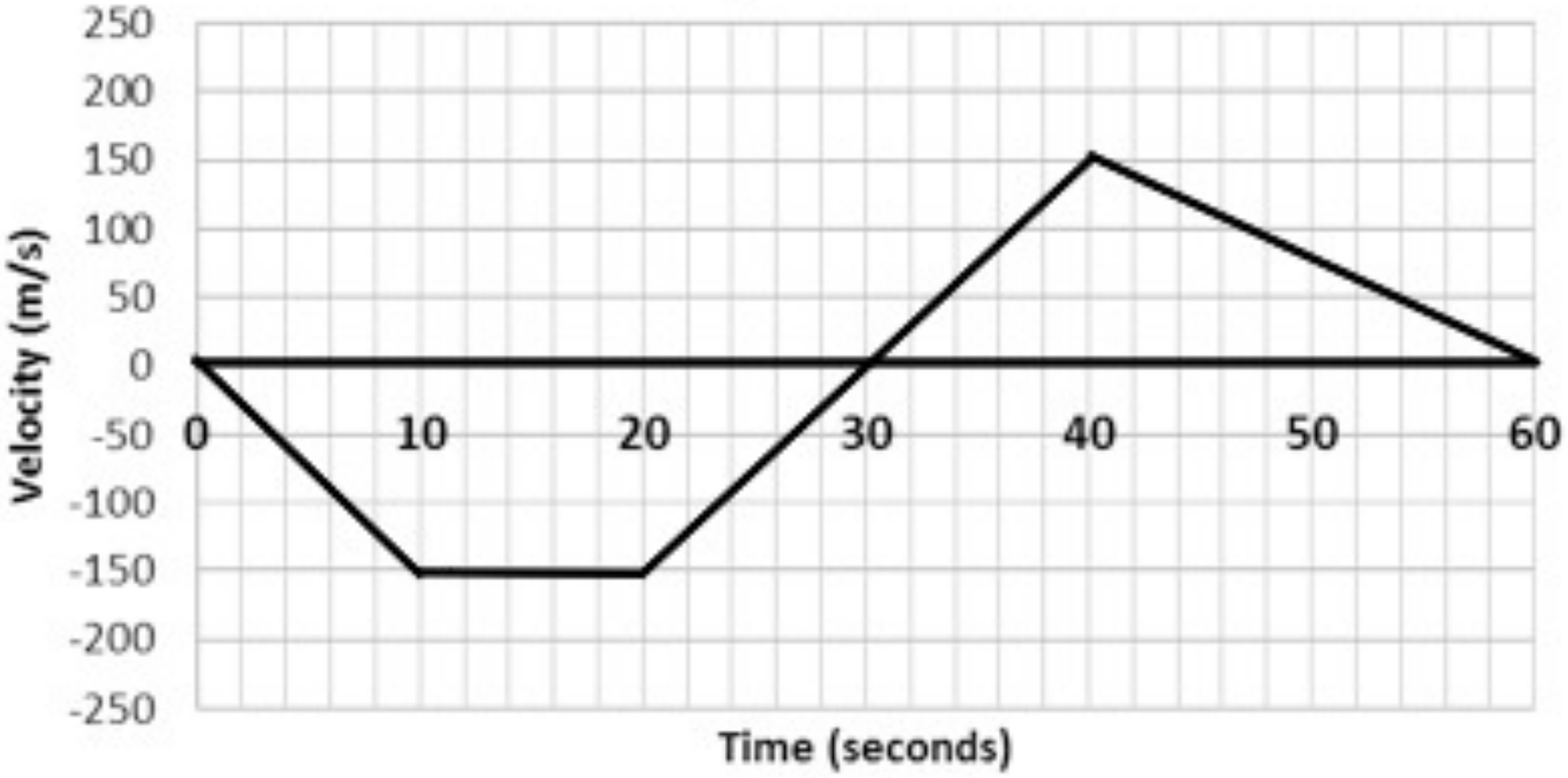
What is the instantaneous velocity at t = 6 seconds?



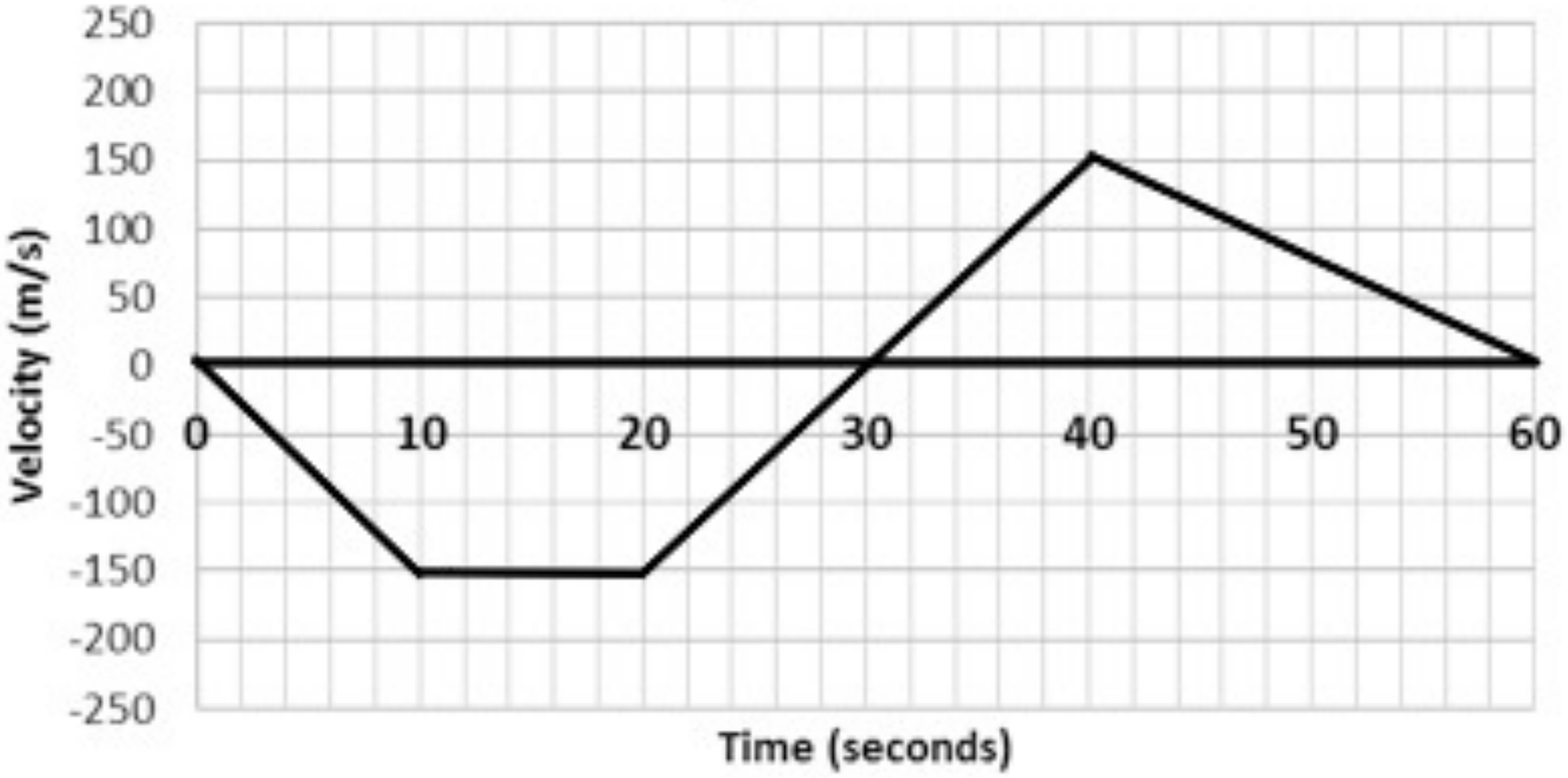
What is the average speed of the unicyclist for the entire trip?



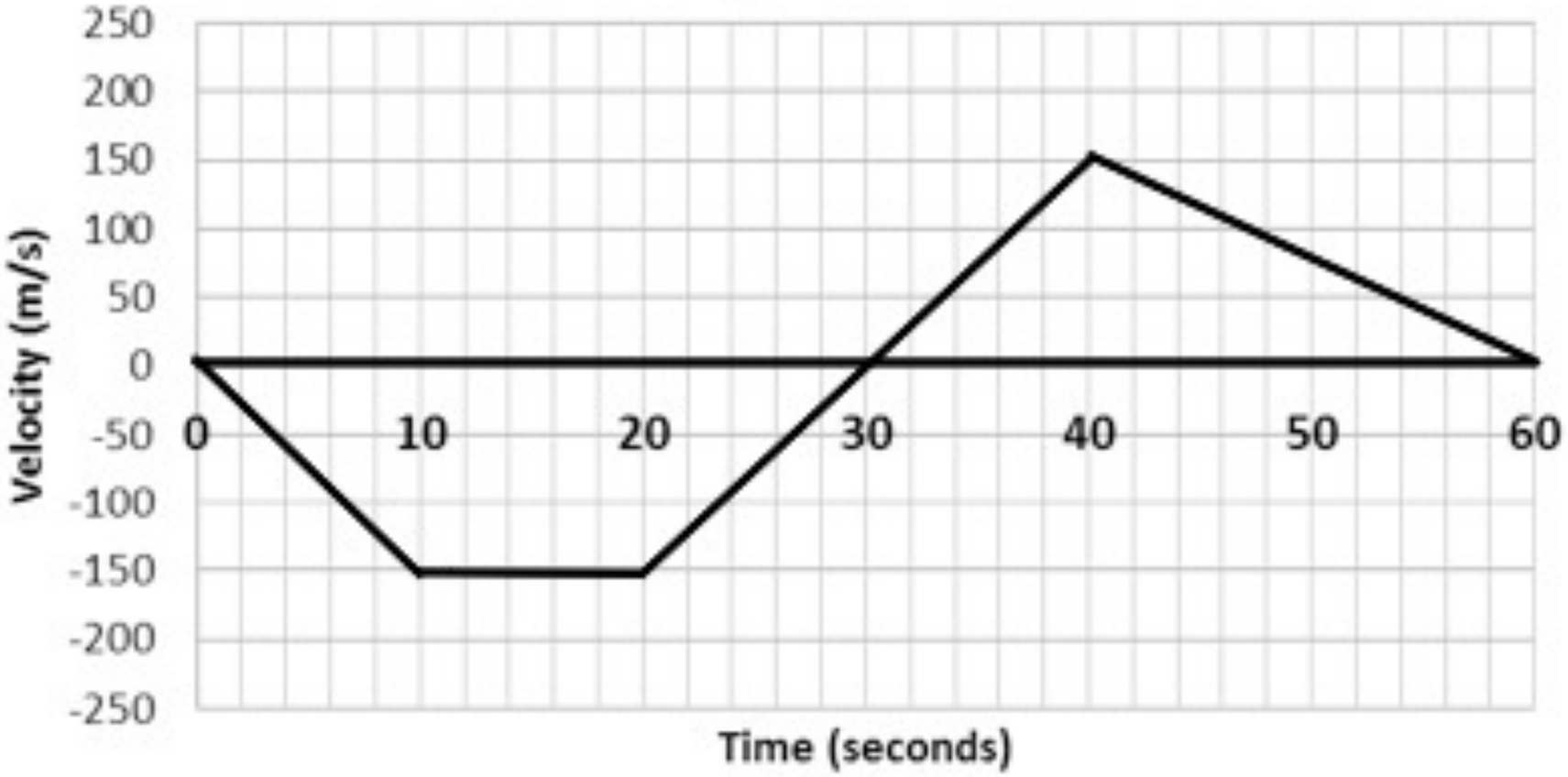
What is the average velocity of the unicyclist for the entire trip?



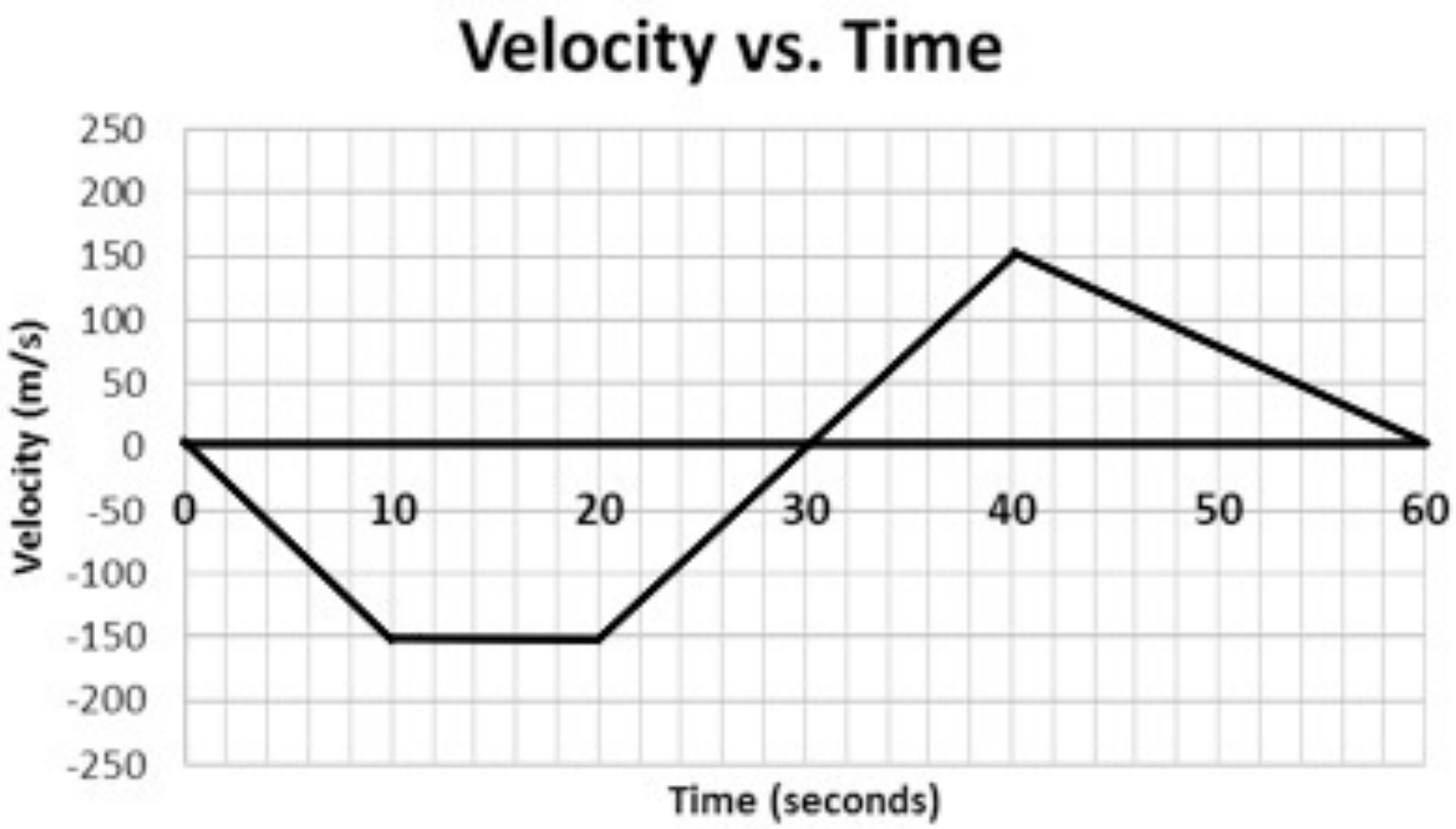
From 0 to 10 seconds, the particle is _____ in the _____ direction.



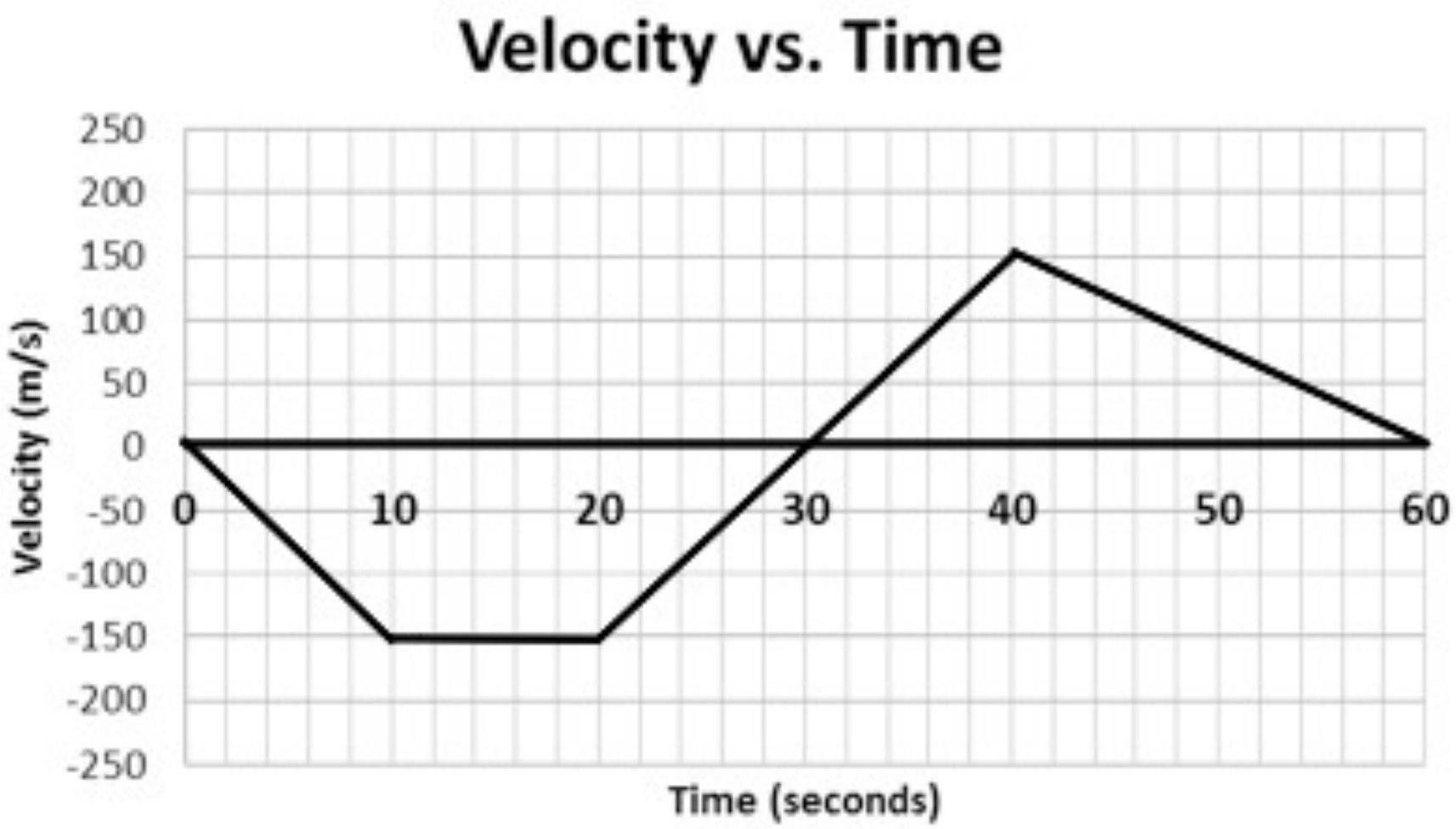
From 10 to 20 seconds, the particle is _____ in the _____ direction.



From 20 to 30 seconds, the particle is _____ in the _____ direction.



From 40 to 60 seconds, the particle is _____ in the _____ direction.



What is the total displacement of the particle over the 60 second time period?

Constant Velocity Lab

- Check the grade on IC.
- I will take general and specific questions after all labs have been returned.

A baseball pitcher throws a ___ m/s fastball toward the batter, ___ meters away. The batter hits a line drive right over the pitcher's head into center field. The fielder stops the ball __ seconds after it is hit, ___ meters from home plate. He hesitates for __ seconds and then throws the ball at ___ m/s to the second baseman, who catches the ball ___ seconds later.

- How long does it take for the ball to travel to home plate?

A baseball pitcher throws a ___ m/s fastball toward the batter, ___ meters away. The batter hits a line drive right over the pitcher's head into center field. The fielder stops the ball __ seconds after it is hit, ___ meters from home plate. He hesitates for __ seconds and then throws the ball at ___ m/s to the second baseman, who catches the ball ___ seconds later.

- Find the ball's average velocity on its trip from the batter to the outfielder.

A baseball pitcher throws a ___ m/s fastball toward the batter, ___ meters away. The batter hits a line drive right over the pitcher's head into center field. The fielder stops the ball __ seconds after it is hit, ___ meters from home plate. He hesitates for __ seconds and then throws the ball at ___ m/s to the second baseman, who catches the ball ___ seconds later.

- Find the distance from outfielder to second base.

A baseball pitcher throws a ___ m/s fastball toward the batter, ___ meters away. The batter hits a line drive right over the pitcher's head into center field. The fielder stops the ball __ seconds after it is hit, ___ meters from home plate. He hesitates for __ seconds and then throws the ball at ___ m/s to the second baseman, who catches the ball ___ seconds later.

- Describe the motion of the baseball with a quantitative position-time graph, a quantitative velocity-time graph

A jet is traveling _____m/s at liftoff, _____ seconds later the jet has a speed of ___ m/s. Find its acceleration.

A jet is traveling ___m/s at liftoff, ___ seconds later the jet has a speed of ___ m/s. Draw a V-t graph. Find its displacement.