An object originally at rest is uniformly accelerated along a straight-line path to a speed of 8.0 meters per second in 2.0 seconds. What was the acceleration of the object?

- $(1) 0.25 \text{ m/s}^2$
- (2) 10.  $m/s^2$
- (3) 16 m/s<sup>2</sup>
- $(4) 4.0 \text{ m/s}^2$

If the mass of an object were doubled, its acceleration due to gravity would be

- (1) halved
- (3) unchanged
- (2) doubled
- (4) quadrupled

.. As an object falls freely near the surface of the Earth, its speed

- (1) decreases
- (3) remains the same
- (2) increases

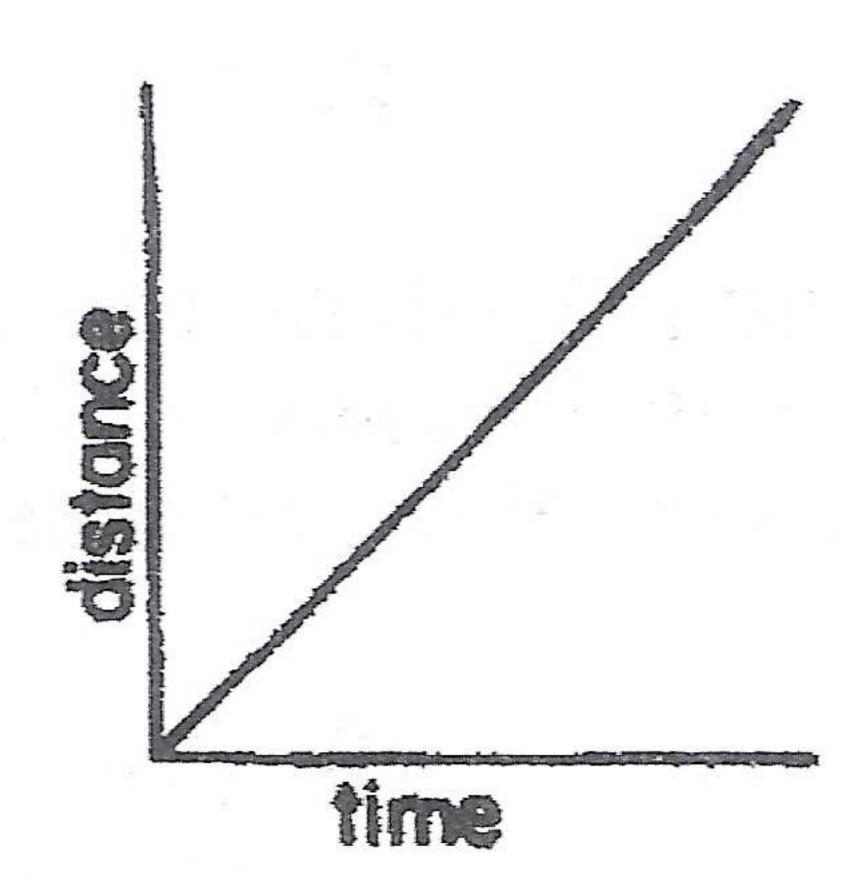
As a body falls freely near the surface of the Earth, its acceleration

- (1) decreases
- (3) remains the same
- (2) increases

An object, initially at rest, falls freely near the Earth's surface. How long does it take the object to attain a speed of 98 meters per second?

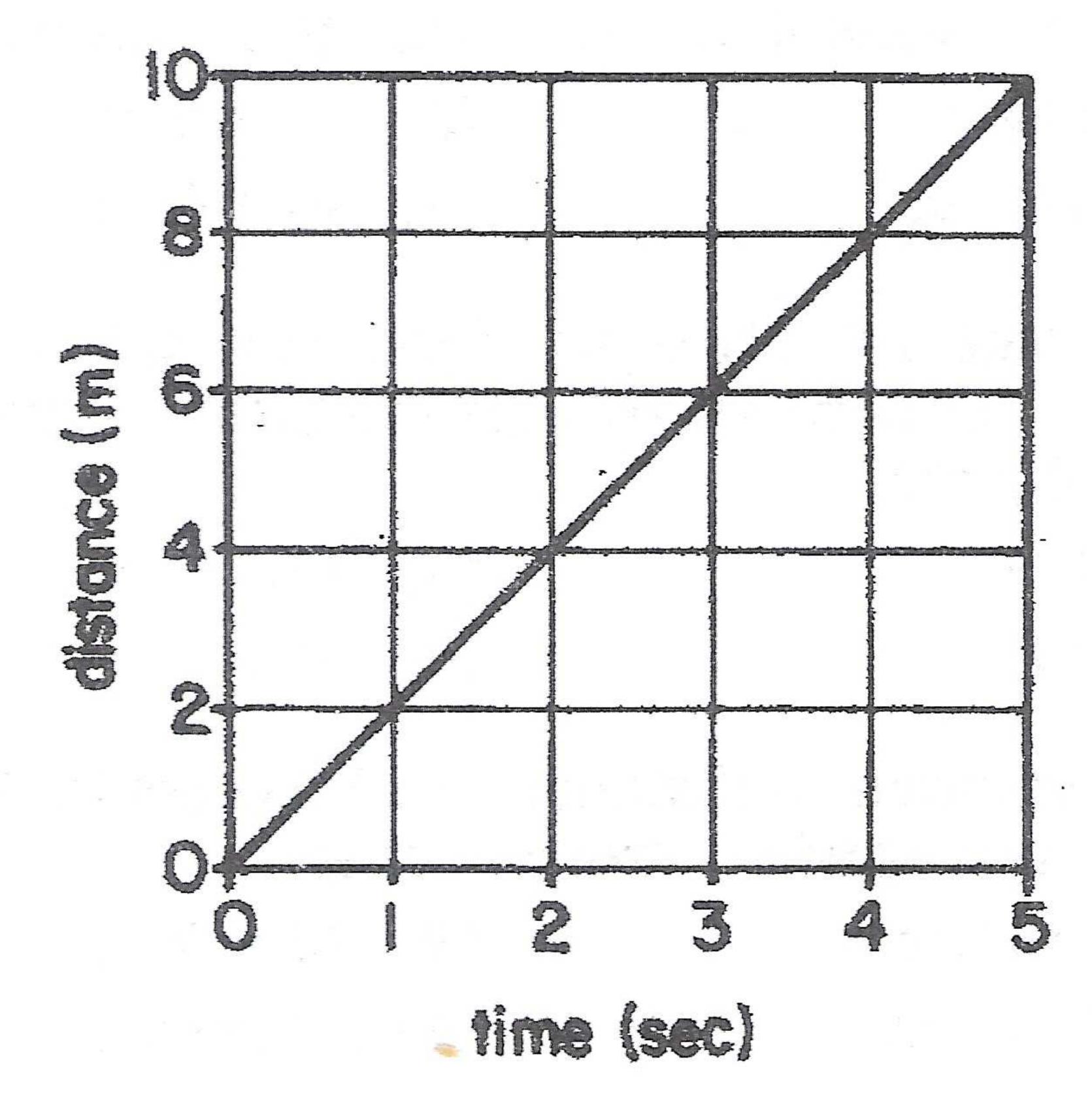
- (1) 0.1 sec
- (3) 98 sec
- (2) 10 sec
- (4) 960 sec

The graph at the right represents the motion of a body that is moving with



- (1) increasing acceleration (3) increasing speed
- (2) decreasing acceleration (4) constant speed

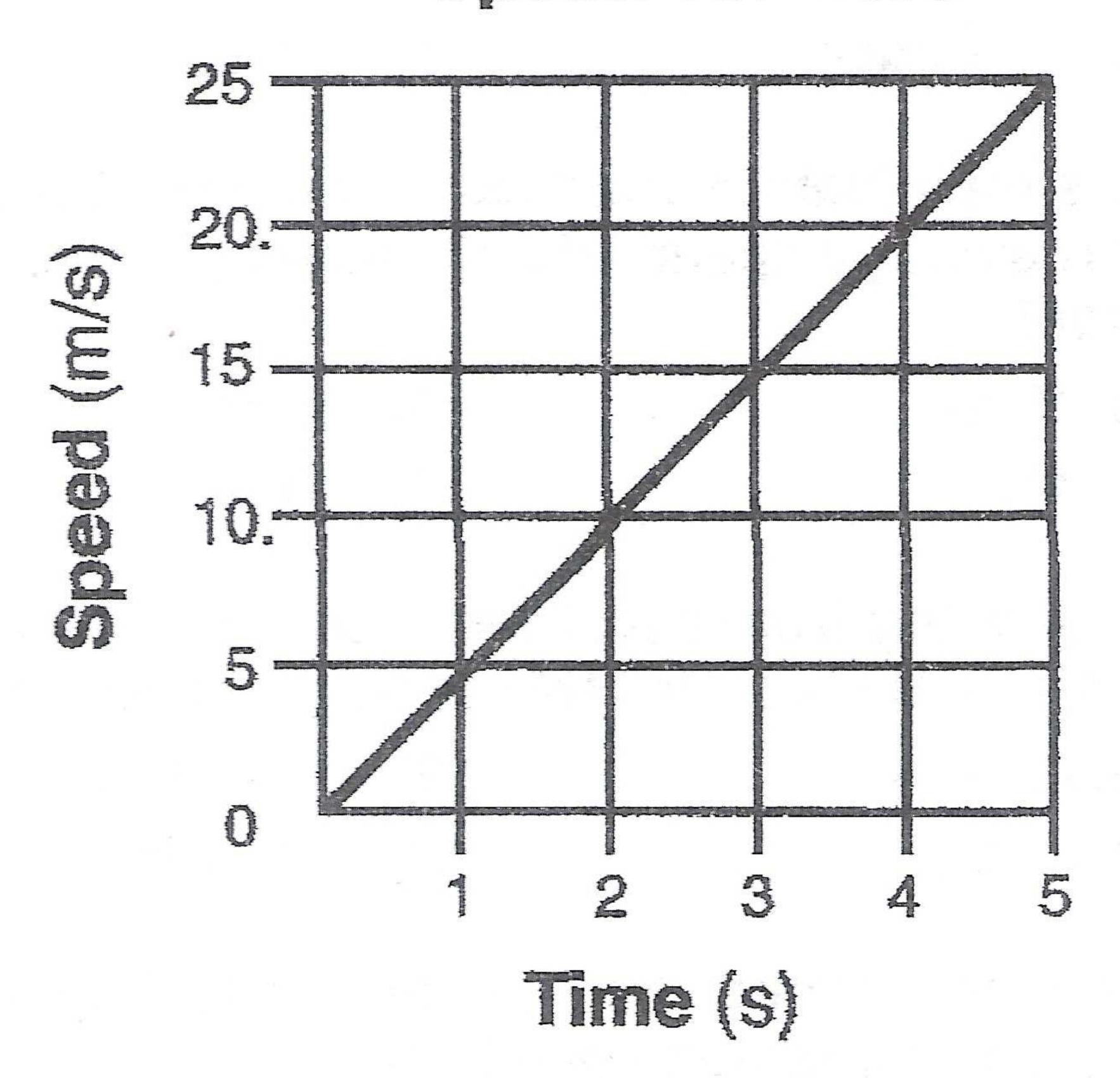
The uniform motion of a cart is shown in the distance versus time graph below. What is the average speed of the cart?



- (1) 0.5 m/s
- (3) 5 m/s
- (2) 2 m/s
- $(4) 50 \, \text{m/s}$

The graph below represents the relationship between speed and time for an object moving along a straight line.





What is the total distance traveled by the object during the first 4 seconds?

- $(1)\cdot 5 m$
- (3) 40 m
- (2) 20 m
- (4) 80 m