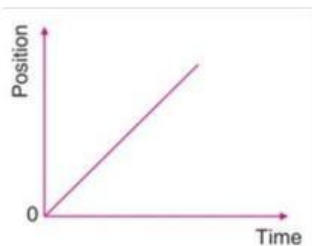
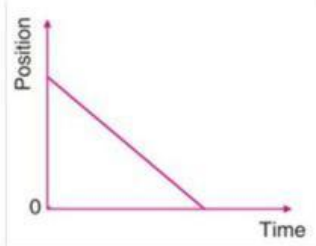


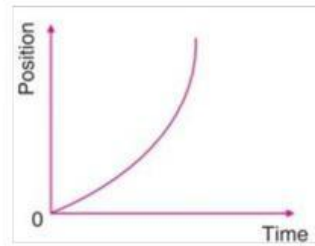
Part 5: Motion graphs

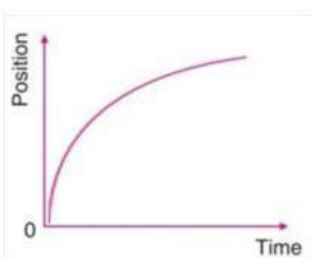
Test yourself

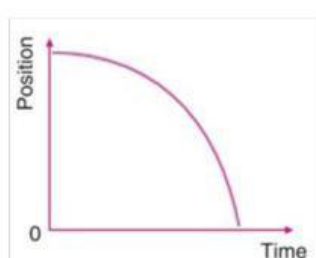
1- Describe the velocity of the moving object depending on the (position-time) graphs shown down.

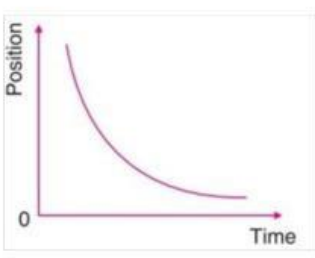


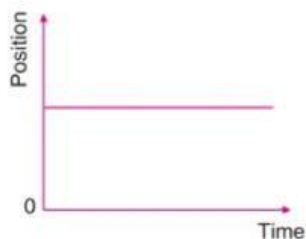






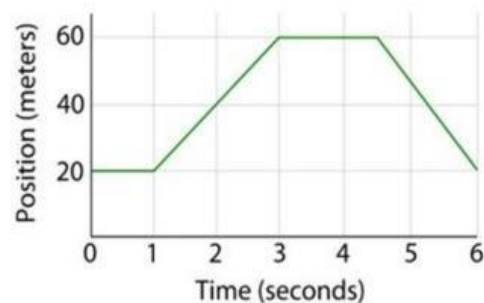






2- Use the following (position-time) graph to find the average velocity of the moving object as required in the table.

The average velocity between ($t = 0 \text{ s}$ to $t = 1 \text{ s}$)	The average velocity between ($t = 1 \text{ s}$ to $t = 3 \text{ s}$)	The average velocity between ($t = 4.5 \text{ s}$ to $t = 6 \text{ s}$)
$v = \frac{\quad}{\quad}$	$v = \frac{\quad}{\quad}$	$v = \frac{\quad}{\quad}$
$v = \quad \text{m/s}$	$v = \quad \text{m/s}$	$v = \quad \text{m/s}$



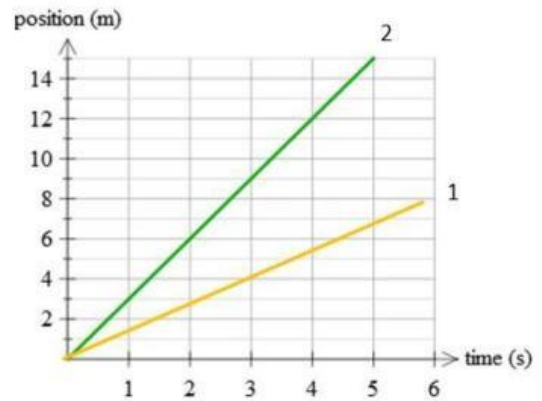
3- The graph represents the motion of two different objects. Which object moves faster, Object A or Object B? explain your answer

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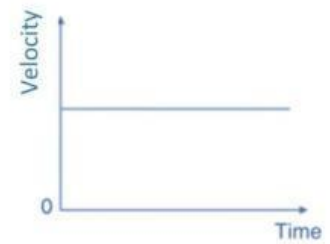
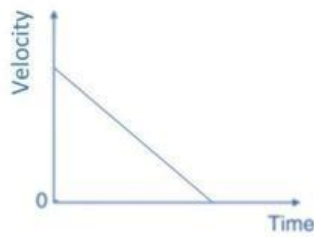
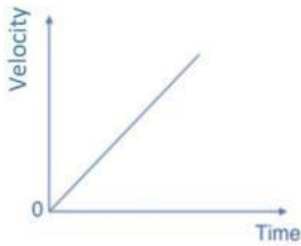
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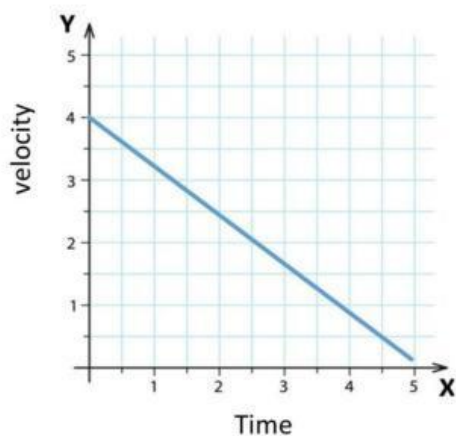
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4. Describe the acceleration of the moving object depending on the (position-time) graphs shown down.

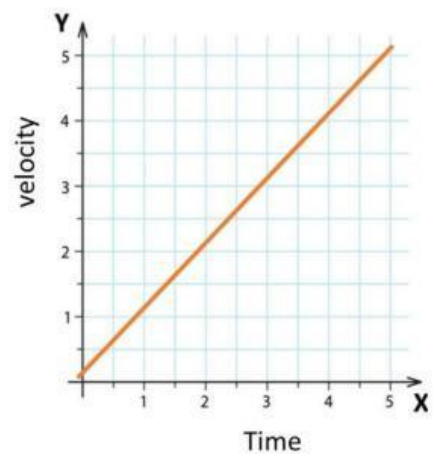


5. Calculate the average acceleration from the velocity-time graph.



$$a = \frac{\quad}{\quad}$$

$$a = \quad \text{m/s}^2$$

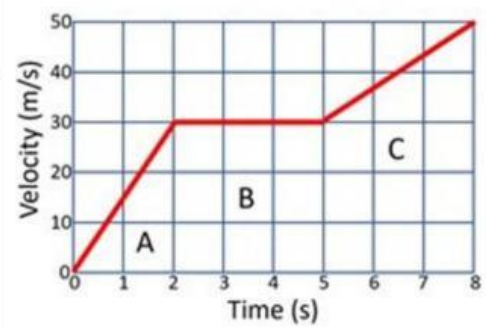


$$a = \frac{\quad}{\quad}$$

$$a = \quad \text{m/s}^2$$

6- Use the following (velocity-time) graph to describe the object motion during each of the following time intervals

Section A (t= 0 s to t= 2 s)	Section B (t= 2 s to t= 5 s)	Section C (t= 5 s to t= 8 s)
$a = \frac{\quad}{\quad}$	$a = \frac{\quad}{\quad}$	$a = \frac{\quad}{\quad}$
$a = \quad m/s^2$	$a = \quad m/s^2$	$a = \quad m/s^2$



Part 5: Average acceleration

Average acceleration

$$a = \frac{v_f - v_i}{\Delta t}$$

Acceleration		
Types	Si unit	Vector or Scalar

Test yourself

1- Determine the direction of the car acceleration in each of the following cases. (right or left)

$\vec{v}$

Speeding Up

$\vec{v}$

Slowing down

$\vec{v}$

Speeding Up

$\vec{v}$

Slowing down

2- A bicycle rider increases his speed from 5 m/s to 15 m/s in 10 s. What is bicycle acceleration?

$$a = \frac{\quad}{\quad}$$

$$a = \quad m/s^2$$