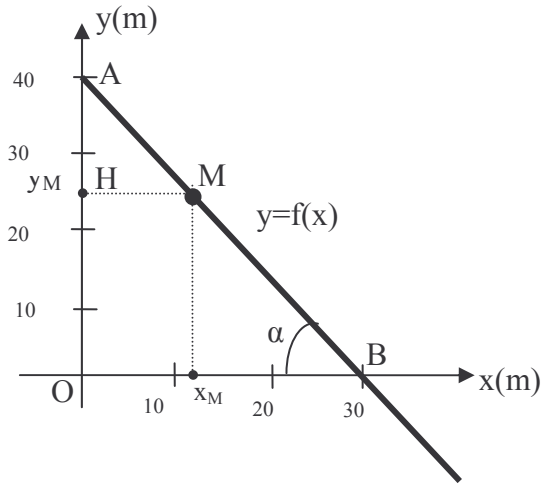


حل التمرين 03



$$AM = 2t \Rightarrow t = \frac{AM}{2} \quad -1$$

عند النقطة B ، $t = t_B$ و $AM = AB$

$$t_B = \frac{AB}{2} \Rightarrow t_B = \frac{\sqrt{OA^2 + OB^2}}{2}$$

$$\Rightarrow t_B = \frac{\sqrt{40^2 + 30^2}}{2} \Rightarrow t_B = 25 \text{ s}$$

-2

$$x_M = AM \cos \alpha$$

$$\cos \alpha = \frac{OB}{AB} = \frac{30}{50} = 0,6 \Rightarrow x_M = 2t \times 0,6$$

$$\Rightarrow \boxed{x_M = 1,2t}$$

-3

$$y_M = OA - HA$$

$$= OA - AM \sin \alpha$$

$$= 40 - 2t \times \frac{OA}{AB}$$

$$\Rightarrow \boxed{y_M = 40 - 1,6t}$$

حيث t بالثانية ، x_M و y_M بالمتر.