مثال :

$\vec{r} = 2t^3\hat{i} - 3t^2\hat{j}$

$\vec{r} = 6t^2\hat{i} - 6t\hat{j}$

الف.١:

$t = 1 \Rightarrow \vec{v}_1 = 6\hat{i} - 6\hat{j}$

الف.٢:

$t = 3 \Rightarrow \vec{v}_3 = 54\hat{i} - 18\hat{j}$

$\vec{v} = \vec{v}_3 - \vec{v}_1 = (54-6)\hat{i} - (18-6)\hat{j}$

$\vec{v} = 48\hat{i} - 12\hat{j}$

ب.١٠:

$$\Delta\vec{v} = \vec{v}$$

$$\Rightarrow \vec{a} = \frac{\vec{v}}{\Delta t}$$

$$\Rightarrow \vec{a} = \frac{28i - 12j}{\frac{3-1}{2}} = 28i - 6j$$

: ٢٠٧