



دفتر :

تفاضل وتكامل 2

calculus 2

الاسبوع (6)

ورد طعمه للدكتورة: الاء قدومي

إعداد

اللجنة الأكاديمية لقسم الهندسة الصناعية

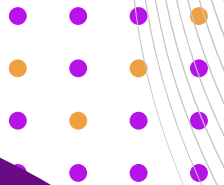
2025



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* Remark :-

* circle with center (a, b) radius r

$$(x-a)^2 + (y-b)^2 = r^2$$

* Line :-

$$y = ax + b$$

* parabola

$$(y-k)^2 = 4c(x-h)$$

$$(x-h)^2 = 4c(y-k)$$

* hyperbola

$$\frac{(x-h)^2}{a^2} - \frac{(y-k)^2}{b^2} = 1$$

$$\frac{(y-k)^2}{a^2} - \frac{(x-h)^2}{b^2} = 1$$

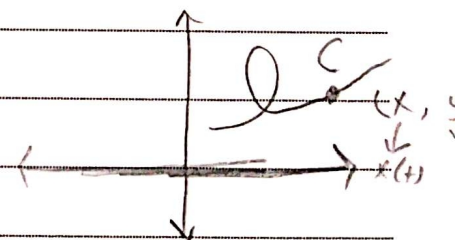
* ellipse

$$\frac{(x-h)^2}{a^2} + \frac{(y-k)^2}{b^2} = 1$$

$$\frac{(x-h)^2}{b^2} + \frac{(y-k)^2}{a^2} = 1$$

* Def :- the parametric equation of $y = f(x)$ is :-

$$\begin{aligned} C: \quad x &= x(t) \\ y &= y(t) \end{aligned} \quad \left. \begin{array}{l} \text{parametric} \\ \text{equation} \end{array} \right\}$$



t : parameter

C : Graph (parametric curve)