



### TUTORIAL-6

- 1) Using Lagrange's interpolation, calculate the profit in the year 2000 from the following data: (M/J 2012)

Year:	1997	1999	2001	2002
Profit Lakhs Rs.	43	65	159	248

---

Find  $f(3)$  by Newton's divided difference formula for the following data: (M/J 2014)

$x$ :	-4	-1	0	2	5
$f(x)$ :	1245	33	5	9	1335

---

Obtain the cubic spline for the following data to find  $y(0.5)$ .

$x$ :	-1	0	1	2
$y$ :	-1	1	3	35

---

Find the cubic polynomial which takes the following values:

(M/J 2012),(M/J 2013),(N/D 2014)

$x$ :	0	1	2	3
$f(x)$ :	1	2	1	10

---