## NUMERICAL SMOOTHING WITH MOVING MEANS – EXAMPLE #2

The number of births per month over calendar year in small country hospital is given below:

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Time Code	1	2	3	4	5	6	7	8	9	10	11	12
Births	10	12	6	5	22	18	13	7	9	10	8	15

# Task 1

Perform a 2-point centred moving average smooth

Time Code	Births	Smoothed	Centred
1	10		
2	12		
3	6		
4	5		
5	22		
6	18		
7	13		
8	7		
9	9		
10	10	1	
11	8		
12	15		

Task 2
Perform a 3-point moving average smooth

Time Code	Births	Smoothed
1	10	
2	12	
3	6	
4	5	
5	22	
6	18	
7	13	
8	7	
9	9	
10	10	
11	8	
12	15	

## Task 3

Perform a 4-point centred moving average smooth.

Time Code	Births	Smoothed	Centred
1	10		
2	12		
3	6		
4	5		
5	22		
6	18		
7	13		
8	7		
9	9		
10	10		
11	8		
12	15		

#### Task 4

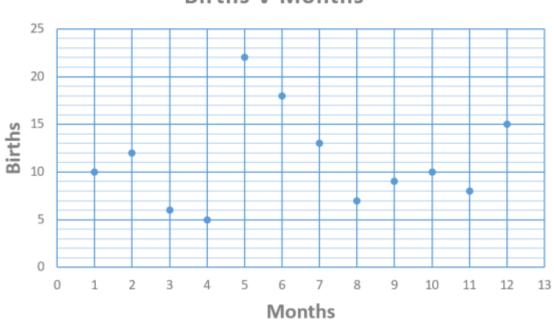
Perform a 5-point moving average smooth

Time Code	Births	Smoothed
1	10	
2	12	
3	6	
4	5	
5	22	
6	18	
7	13	
8	7	
9	9	
10	10	
11	8	
12	15	

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Time Code	1	2	3	4	5	6	7	8	9	10	11	12
Births	10	12	6	5	22	18	13	7	9	10	8	15

The number of births per month over calendar year in small country hospital is given below:

Task 5 Graph the 2-point centred moving average smooth

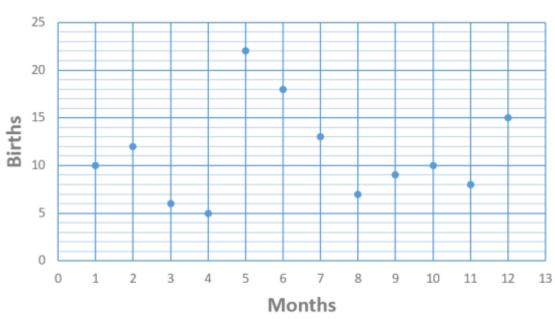


# **Births V Months**

Task 6 Graph the 3-point moving average smooth

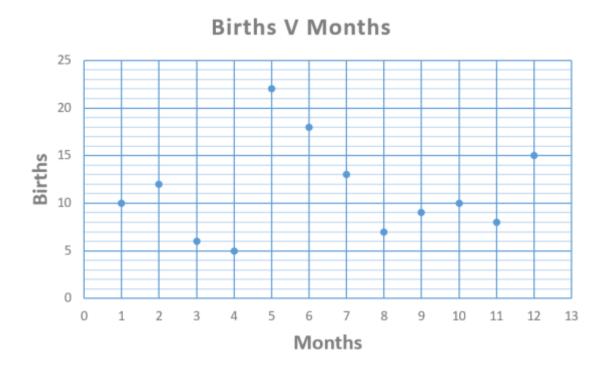


Task 7 Graph the 4-point centred moving average smooth.

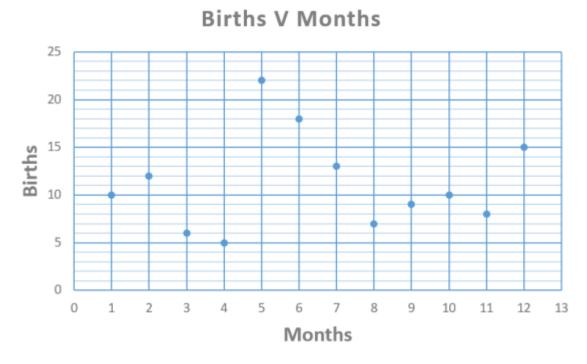


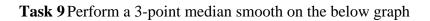
**Births V Months** 

Task 8 Graph the 5-point moving average smooth



#### **GRAPHICAL SMOOTHING WITH MOVING MEDIANS**





**Task 10**Perform a 5-point median smooth on the below graph

