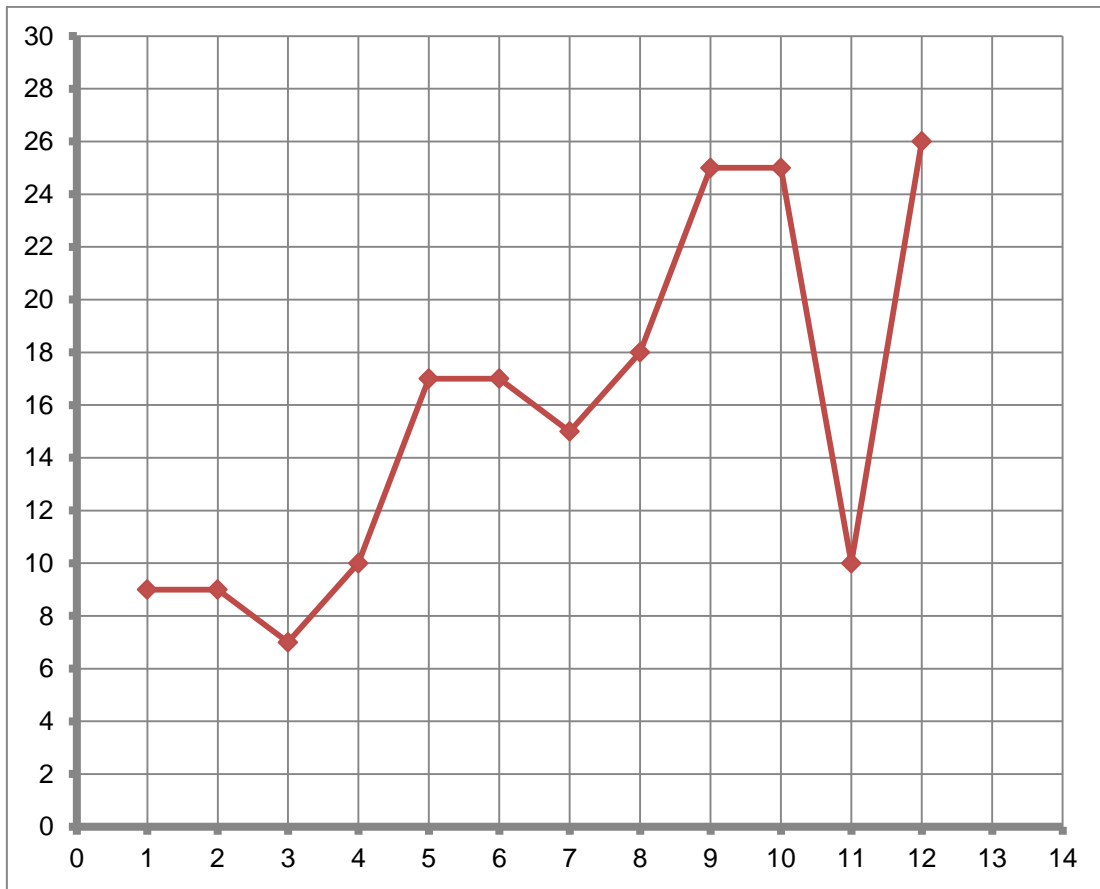


1.

a. Use a **3 point moving median** to smooth the following time series:



b. What trend is evident?

.....

c. Why for this time series is it preferable to use a moving median rather than a moving mean?

.....

2. Given the time series below:

Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct
2	4	3	6	1	2	5	3	7	6

a. Calculate the **5 month moving mean** centred at May

.....

.....

b. Calculate the **centred 4 month moving median** for June.

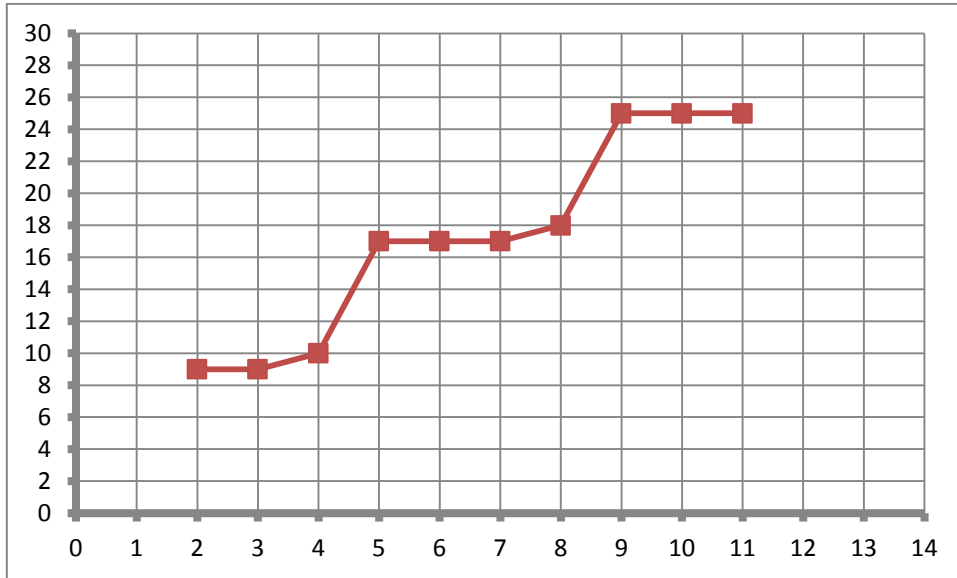
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.....

Answers

1.a.



b. Upward non linear trend

c. Presence of an outlier at (11, 10) in the time series. Median smoothing will quickly eliminate the influence of this outlier.

2.

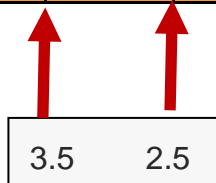
a.

Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct
2	4	3	6	1	2	5	3	7	6

3.4

b.

Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct
2	4	3	6	1	2	5	3	7	6



3