



INDIAN SCHOOL NIZWA - WORKSHEET

- c) The sum of the moving averages for the year 1984 and 1986.
- d) Draw the moving average graph.

10. Consider the following data. Profit given in thousands:

Years	2004	2005	2006	2007	2008	2009	2010
Profit	114	130	126	144	138	156	164

And by using method of least squares answer the following questions

- a) Find the equation of trend line
 - b) Determine the slope of the trend line
 - c) The sum of the trend value for the year 2009 and 2006.
11. Fit a straight line trend by the method of least squares to the following data on sales (₹ in lakhs) for the period 2005-2012.

Year	2005	2006	2007	2008	2009	2010	2011	2012
Sales in lakh	76	80	130	144	138	120	174	190

- i) Calculate the trend values from 2005 to 2012.
 - ii) What will be predicted sales for 2015, assuming that the same rate of change continues?
12. The following table shows the quarterly sales (₹ in crore) of a real estate company. Compute the trend by quarterly moving averages.

Quarters/years	Q_1	Q_2	Q_3	Q_4
2018	12	14	18	20
2019	18	16	20	22
2020	27	24	30	36

13. Fit a straight-line trend by the method of least squares and estimate the trend for the year 2023.

Year	2014	2015	2016	2017	2018	2019	2020
Sales in lakh ₹	26	26	44	42	108	120	166

14. Consider the following data, calculate 4 yearly centred moving averages.

Year	2010	2011	2012	2013	2014	2015	2016
Income (₹ in lakh)	4	5	7	6	3	4	6