

Premedical course

MINITAB practical 3

1. Plot the following time-series, perform such calculations as you think appropriate, and interpret the data.

a. Annual births in England & Wales of children with spina bifida. Total numbers, and numbers per 10,000 live births are given; live births and stillbirths are both included in the spina bifida figures.

Year	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Number	1552	1537	1267	1185	1101	880	881	841	845	756
Rate	19.6	20.9	18.5	18.3	18.1	14.9	15.3	14.0	13.1	11.4
Year	1981	1982	1983	1984	1985	1986	1987	1988	1989	
Number	663	511	422	378	360	267	209	157	135	
Rate	10.4	8.1	6.7	5.9	5.5	4.0	3.1	2.3	2.0	

b. Annual deaths from asthma in males and females aged 15-24 in England & Wales, per 100,000 in the relevant age-sex group.

Year	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968
Males	0.52	0.84	0.84	1.02	1.20	1.59	2.18	2.29	1.70	1.29
Females	0.97	0.64	0.85	1.20	1.59	1.78	2.30	2.74	1.67	1.32
Year	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978
Males	1.04	1.09	1.18	1.05	1.03	0.57	0.79	0.67	0.63	0.62
Females	1.12	0.98	0.81	0.97	0.71	0.86	0.65	0.50	0.60	0.84

c. Annual numbers of cases of measles notified in England and Wales (in thousands).

Year	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973
Cases	306.8	502.2	343.6	460.4	236.2	142.1	307.4	135.2	145.9	152.6
Year	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983
Cases	109.6	143.0	55.5	173.4	124.1	77.4	139.5	53.0	94.2	103.7
Year	1984	1985	1986	1987	1988	1989				
Cases	62.1	97.4	82.1	42.2	86.0	26.2				