

Moving Averages

15 marks

1. The table shows the number of computer games sold in a supermarket each month from January to June.

| | | | | | |
|-----|-----|-----|-----|-----|-----|
| Jan | Feb | Mar | Apr | May | Jun |
| 147 | 161 | 238 | 135 | 167 | 250 |

- (a) Work out the three month moving averages for this information.

..... and

(2)

2. The table shows the number of orders received each month by a small company.

| | | | | | | | | |
|---------------------------|-----|-----|-----|-----|-----|-----|-----|-----|
| Month | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug |
| Number of orders received | 23 | 31 | 15 | 11 | 19 | 16 | 20 | 13 |

Work out the first two 4-month moving averages for this data.

..... and

(Total 3 marks)

3. A shop sells DVD players.

The table shows the number of DVD players sold in every three-month period from January 2003 to June 2004.

| Year | Months | Number of DVD players sold |
|------|-----------|----------------------------|
| 2003 | Jan – Mar | 58 |
| | Apr – Jun | 64 |
| | Jul – Sep | 86 |
| | Oct – Dec | 104 |
| 2004 | Jan – Mar | 65 |
| | Apr – Jun | 70 |

(a) Calculate the set of four-point moving averages for this data.

.....

(2)

(b) What do your moving averages in part (a) tell you about the trend in the sale of DVD players?

.....

(1)

(Total 3 marks)

4. Paul and Carol open a new shop in the High Street.

The table shows the monthly takings in each of the first four months.

| Month | Jan | Feb | March | April |
|---------------------|------|------|-------|-------|
| Monthly takings (£) | 9375 | 8907 | 9255 | 9420 |

Work out the 3-point moving averages for this information.

.....

(2)

(Total 2 marks)

5. The owner of a music shop recorded the number of CDs sold every 3 months.

The table shows his records from January 2004 to June 2005.

| Year | Months | Number of CDs |
|------|------------|---------------|
| 2004 | Jan – Mar | 270 |
| | Apr – Jun | 324 |
| | Jul – Sept | 300 |
| | Oct – Dec | 258 |
| 2005 | Jan – Mar | 309 |
| | Apr – Jun | 335 |

- (a) Calculate the complete set of four-point moving averages for this information.

.....

(2)

- (b) What trend do these moving averages suggest?

.....

(1)

(Total 3 marks)

6. The table shows some information about student absences.

| Term | Autumn 2003 | Spring 2004 | Summer 2004 | Autumn 2004 | Spring 2005 | Summer 2005 |
|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Number of absences | 408 | 543 | 351 | 435 | 582 | 372 |

Work out the three-point moving averages for this information. The first two have been done for you.

434, 443,,

(Total 2 marks)