**Moving averages - GREEN**

**1.** A shop sells mobile phones.
The table shows the number of mobile phones sold each month from January to May.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Jan | Feb | Mar | Apr | May |
| 70 | 64 | 73 | 85 | 91 |

Work out the 3-month moving averages for the information in the table. The first one has been worked out for you.

......69..... .............. ..............

 (Total 2 marks)

**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 2 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.

..............................................................................................

(3)

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

...................................................................................................................................

(1)

(Total 4 marks)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Month | Jan | Feb | Mar | Apr | May | Jun |
| Number of televisions | 1240 | 1270 | 1330 | 1300 | 1330 | *x* |

**4.**

 The table shows the number of televisions sold in a shop in the first five months of 2006.

 The fourth 3-month moving average of the number of televisions sold in 2006 is 1350.
The number of televisions sold in the shop in June was *x.*

Work out the value of *x.*

*x =* ......................................

 (Total 2 marks)

**Moving averages - AMBER**

**1.** A shop sells mobile phones.
The table shows the number of mobile phones sold each month from January to May.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Jan | Feb | Mar | Apr | May |
| 70 | 64 | 73 | 85 | 91 |

Work out the 3-month moving averages for the information in the table. The first one has been worked out for you.

......69..... .............. ..............

 (Total 2 marks)

**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 2 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.

..............................................................................................

(3)

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

...................................................................................................................................

(1)

(Total 4 marks)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Month | Jan | Feb | Mar | Apr | May | Jun |
| Number of televisions | 1240 | 1270 | 1330 | 1300 | 1330 | *x* |

**4.**

 The table shows the number of televisions sold in a shop in the first five months of 2006.

 The fourth 3-month moving average of the number of televisions sold in 2006 is 1350.
The number of televisions sold in the shop in June was *x.*

Work out the value of *x.*

*x =* ......................................

 (Total 2 marks)

**Moving averages - RED**

**1.** A shop sells mobile phones.
The table shows the number of mobile phones sold each month from January to May.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Jan | Feb | Mar | Apr | May |
| 70 | 64 | 73 | 85 | 91 |

Work out the 3-month moving averages for the information in the table. The first one has been worked out for you.

Average of Jan, Feb, Mar = 69

Average of Feb, Mar, Apr = \_\_\_

Average of Mar, Apr, May = \_\_\_

......69..... .............. ..............

 (Total 2 marks)

**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.

Average of Jan, Feb, Mar, Apr = \_\_\_

Average of Feb, Mar, Apr, May = \_\_\_

...................... and .....................

(Total 2 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.

Average of Jan - Mar, Apr – Jun, Jul – Sep, Oct - Dec = \_\_\_

Average of Apr – Jun, Jul – Sep, Oct – Dec, Jan - Mar = \_\_\_

Average of Jul – Sep, Oct – Dec, Jan – Mar, Apr - Jun = \_\_\_

..............................................................................................

(3)

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

Is it increasing or decreasing?

...................................................................................................................................

(1)

(Total 4 marks)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Month | Jan | Feb | Mar | Apr | May | Jun |
| Number of televisions | 1240 | 1270 | 1330 | 1300 | 1330 | *x* |

**4.**

 The table shows the number of televisions sold in a shop in the first five months of 2006.

 The fourth 3-month moving average of the number of televisions sold in 2006 is 1350.
The number of televisions sold in the shop in June was *x.*

Work out the value of *x.*

1300 + 1330 + *x* = 1350

 3

*x =* ......................................

 (Total 2 marks)