**Moving Averages Task**

# Task 1

A M Cameron Ltd manufactures furniture. The company’s sales revenue for the last 10 years is shown in the table below.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Year** | **2006** | **2007** | **2008** | **2009** | **2010** | **2011** | **2012** | **2013** | **2014** | **2015** |
| **Sales** | 220 | 235 | 275 | 360 | 255 | 345 | 330 | 380 | 280 | 410 |
|  |  |  |  |  |  |  |  |  |  |  |

Calculate a three-year moving average of the company’s sales revenue, writing your answers on the table provided. (3)

Plot your answers on the graph provided and draw a line of best fit. (2)

Use the best fit line to predict sales revenue for 2016. (1)

Assess the usefulness of this prediction to the company. (6)

# Task 2

Now repeat the above using the following data for one of A M Cameron’s competitors:

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Year** | **2006** | **2007** | **2008** | **2009** | **2010** | **2011** | **2012** | **2013** | **2014** | **2015** |
| **Sales** | 500 | 460 | 510 | 520 | 540 | 510 | 490 | 480 | 510 | 530 |
|  |  |  |  |  |  |  |  |  |  |  |

**Moving Averages Task ANSWERS**

# Task 1

A M Cameron Ltd manufactures furniture. The company’s sales revenue for the last 10 years is shown in the table below.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Year** | **2006** | **2007** | **2008** | **2009** | **2010** | **2011** | **2012** | **2013** | **2014** | **2015** |
| **Sales** | 220 | 235 | 275 | 360 | 255 | 345 | 330 | 380 | 280 | 410 |
|  |  | 243 | 290 | 297 | 320 | 310 | 352 | 330 | 357 |  |

Calculate a three-year moving average of the company’s sales revenue, writing your answers on the table provided. (3)

Plot your answers on the graph provided and draw a line of best fit. (2)

Use the best fit line to predict sales revenue for 2016. (1)

Assess the usefulness of this prediction to the company. (6)

# Task 2

Now repeat the above using the following data for one of A M Cameron’s competitors:

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Year** | **2006** | **2007** | **2008** | **2009** | **2010** | **2011** | **2012** | **2013** | **2014** | **2015** |
| **Sales** | 500 | 460 | 510 | 520 | 540 | 510 | 490 | 480 | 510 | 530 |
|  |  | 490 | 497 | 523 | 523 | 513 | 493 | 493 | 507 |  |