Topic: Coding

Day 6 Question 1

A meteorologist records the daily mean pressures, p hPa, at Heathrow on the first 10 days of May 2015.

The data is coded using $x = \dfrac{p - 1000}{2}$. The summary statistics are:

$\sum x = 43.5$ $\sum x^2 = 365.25$

Find:

a the mean of the daily mean pressures   **(2 marks)**

b the variance of the daily mean pressures.   **(2 marks)**

Day 6 Question 2

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Yvonne is investigating the salaries of top executives in the banking industry.

a Given that a typical salary is in excess of £100 000, explain why it might be sensible for Yvonne to code her raw data.   **(1 mark)**

She records the salaries of 8 people and uses the coding $y = ax + b$ where x is the original data and y is the coded data. Her coded summary statistics are:

$\sum y = 104$ $\sum y^2 = 1634$

b Given that the mean salary in the sample is £165 000 and the variance is 881 250 000, find the values of a and b.   **(3 marks)**