AQA - Correlation and Regression – GCSE Statistics – 2019

1. June/2019/Paper_1H/No.13

Competitors in the Pairs Figure Skating competition in the Winter Olympics perform twice.

The competitors are awarded points each time.

The table shows the points awarded to the top 10 pairs in the 2018 Winter Olympics.

Names of competitors	Performance 1	Performance 2
Savchenko & Massot	76.59	159.31
Sui & Han	82.39	153.08
Duhamel & Radford	76.81	153.33
Tarasova & Morozov	81.68	143.25
James & Cipress	75.34	143.19
Marchei & Hotarek	74.50	142.09
Zabiiako & Enbert	74.34	138.53
Yu & Zhang	75.58	128.52
Seguin & Bilodeau	67.52	136.50
Della Monica & Guarise	74.00	128.74

Source: www.bbc.co.uk

(a) Calculate the value of Spearman's Rank Correlation Coefficient between the points scored in the two performances.

Use $r_s = 1 - \dfrac{6\sum d^2}{n(n^2 - 1)}$ and $\sum d^2 = 50$

[2 marks]

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Answer _____

(b)   Interpret your answer to **part (a)** in context.

[1 mark]

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2.   June/2019/Paper_2F/No.2

Circle the value which indicates no correlation between two variables.

[1 mark]

1   0   −1   −100