

Online Practice

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Computing the sample correlation coefficient and the coefficient of determination

For major league baseball teams, is there a relationship between player payroll and mean attendance? Here are data for each of the American League teams for the 2002 season. Let x denote the 2002 player payroll (in millions of dollars), and the variable y denote the mean attendance (in thousands of fans) for the 81 home games that year. The Figure 1 scatter plot. Also given are the products of the player payroll and mean attendance values for each of the fourteen teams. (These products, labelled " xy ," may aid in calculations.)

	Player payroll, x (in \$1,000,000s)	Mean attendance, y (in thousands)	xy
Anaheim	62.8	28.52	1791.056
Baltimore	56.5	33.09	1869.585
Boston	110.2	32.72	3605.744
Chicago White Sox	54.5	20.74	1130.33
Cleveland	74.9	32.35	2423.015
Detroit	54.4	18.52	1007.488
Kansas City	49.4	16.30	805.22
Minnesota	41.3	23.70	978.81
New York Yankees	133.4	42.84	5714.856
Oakland	41.9	26.79	1122.501
Seattle	86.1	43.70	3762.57
Tampa Bay	34.7	13.21	458.387
Texas	106.9	29.01	3101.169
Toronto	66.8	20.25	1352.7

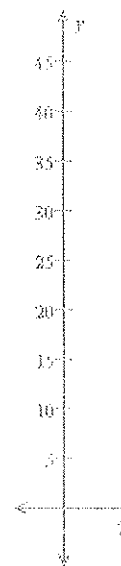


Figure 1



Send data
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Answer the following. Carry your intermediate computations to at least four decimal places and round your answer as specified below. (If necessary, consult a

What is the value of the sample correlation coefficient for these data? Round your answer to at least three decimal places.

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