Exercul DVM

Version: Generator v0.1 (2026)

EXERCISE 1

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9	1
10	0

Calculate the correlation coefficient r between x and y.

Calculate the slope a and the intercept b of the regression line.

Predict the number of hours spent on other activities when a student spends 12 hours on homework.

Interpret the sign of the correlation coefficient in the context of the data.

Explain why the regression line can be used to predict y from x.

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Interpret the sign of the correlation coefficient in the context of the data.

Explain why the regression line can be used to predict y from x.

EXERCISE 42

Consider the following data on the number of hours spent on homework (variable x) and the number of hours spent on other activities (variable y) for a sample of 10 students. Assume that the relation between x and y is of the form $y = ax + b$.

x	y
1	9
2	8
3	7
4	6
5	5
6	4
7	3
8	2
9	1
10	0

Calculate the correlation coefficient r between x and y.

Calculate the slope a and the intercept b of the regression line.

Predict the number of hours spent on other activities when a student spends 12 hours on homework.

Interpret the sign of the correlation coefficient in the context of the data.

Explain why the regression line can be used to predict y from x.

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2	8
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EXERCISE 44

Consider the following data on the number of hours spent on homework (variable x) and the number of hours spent on other activities (variable y) for a sample of 10 students. Assume that the relation between x and y is of the form $y = ax + b$.

x	y
1	9
2	8
3	7
4	6
5	5
6	4
7	3
8	2
9	1
10	0

Calculate the correlation coefficient r between x and y.

Calculate the slope a and the intercept b of the regression line.

Predict the number of hours spent on other activities when a student spends 12 hours on homework.

Interpret the sign of the correlation coefficient in the context of the data.

Explain why the regression line can be used to predict y from x.

EXERCISE 45

Consider the following data on the number of hours spent on homework (variable x) and the number of hours spent on other activities (variable y) for a sample of 10 students. Assume that the relation between x and y is of the form $y = ax + b$.

x	y
1	9
2	8
3	7
4	6
5	5
6	4
7	3
8	2
9	1
10	0

Calculate the correlation coefficient r between x and y.

Calculate the slope a and the intercept b of the regression line.

Predict the number of hours spent on other activities when a student spends 12 hours on homework.

Interpret the sign of the correlation coefficient in the context of the data.

Explain why the regression line can be used to predict y from x.

EXERCISE 46

Consider the following data on the number of hours spent on homework (variable x) and the number of hours spent on other activities (variable y) for a sample of 10 students. Assume that the relation between x and y is of the form $y = ax + b$.

x	y
1	9
2	8
3	7
4	6
5	5
6	4
7	3
8	2
9	1
10	0

Calculate the correlation coefficient r between x and y.

Calculate the slope a and the intercept b of the regression line.

Predict the number of hours spent on other activities when a student spends 12 hours on homework.

Interpret the sign of the correlation coefficient in the context of the data.

Explain why the regression line can be used to predict y from x.

EXERCISE 47

Consider the following data on the number of hours spent on homework (variable x) and the number of hours spent on other activities (variable y) for a sample of 10 students. Assume that the relation between x and y is of the form $y = ax + b$.

x	y
1	9
2	8
3	7
4	6
5	5
6	4
7	3
8