

Spring 2021 Regression Part One

...

Hi Autar, when you submit this form, the owner will be able to see your name and email address.

1

Close to half of the scores in a test given to a class are above the

- ☐ average score
- ☐ median score
- ☐ standard deviation
- ☐ mean score

2

x	y
2	8
4	16
8	11

Find the value of a for which the summation below is the absolute minimum.

$$\sum_{i=1}^3 (y_i - ax_i)^2$$

Enter your math answer

3

The following data

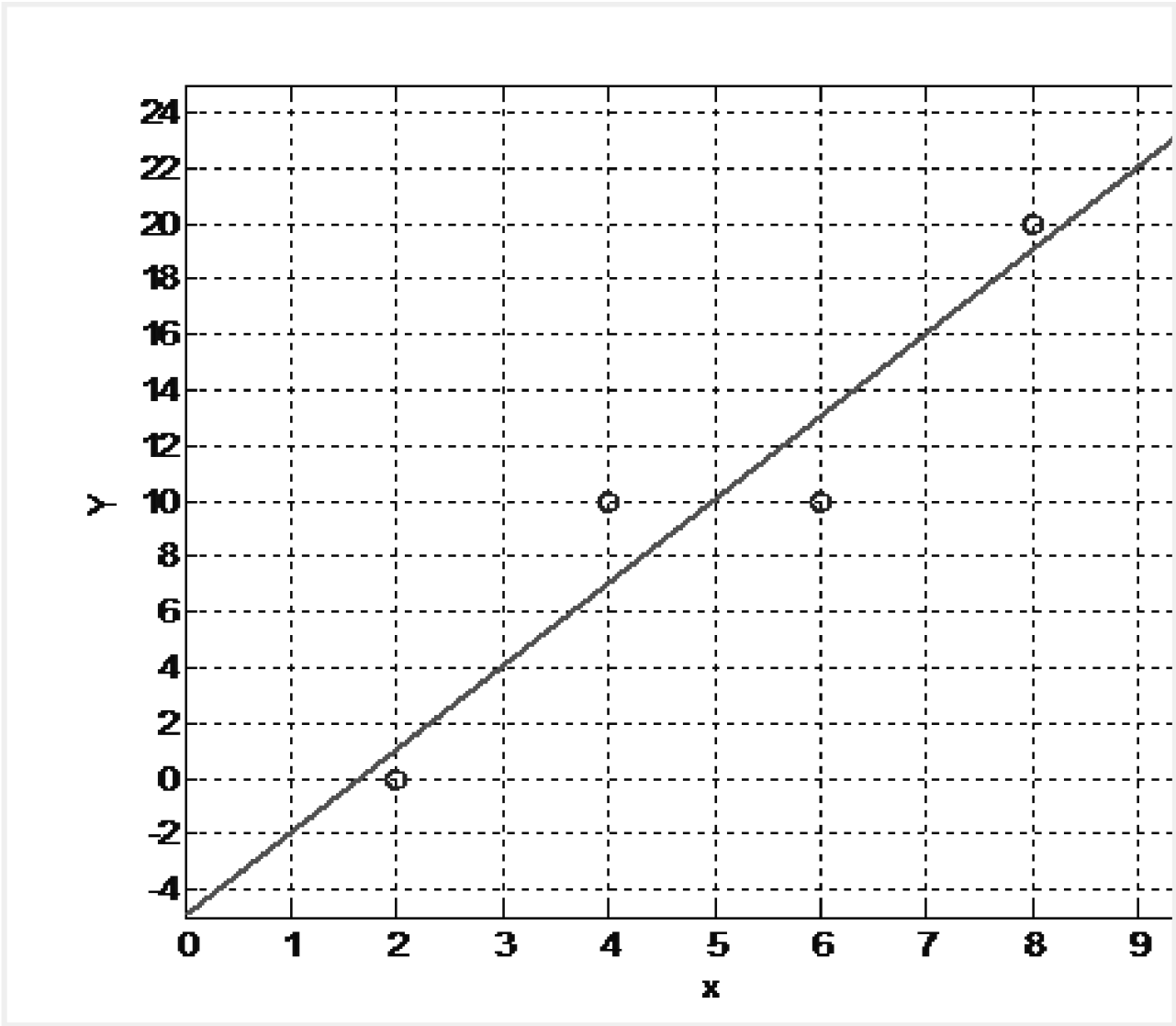
x	1	20	30	40
y	1	400	800	1300

is regressed with least squares regression to a straight line to give $y = -116 + 32.6x$. The observed value of y at $x = 20$ is

Enter your math answer

4

Four data points from an experiment are shown as small circles in the above plot. Also drawn is the corresponding least squares regression straight-line model $y = 3x - 5$. Estimate the sum of the square of the residuals.



Enter your math answer

Given $(x_1, y_1), (x_2, y_2), \dots, (x_n, y_n)$, best fit to $y = f(x)$ by least squares requires minimization of

$$(A) \sum_{i=1}^n [y_i - f(x_i)]$$

$$(B) \sum_{i=1}^n |y_i - f(x_i)|$$

$$(C) \sum_{i=1}^n [y_i - f(x_i)]^2$$

$$(D) \sum_{i=1}^n [y_i - \bar{y}]^2, \bar{y} = \frac{\sum_{i=1}^n y_i}{n}$$

☐ Answer is A

☐ Answer is B

☐ Answer is C

☐ Answer is D

Submit

This content is created by the owner of the form. The data you submit will be sent to the form owner. Microsoft is not responsible for the privacy or security practices of its customers, including those of this form owner. Never give out your password.

Powered by Microsoft Forms | Privacy and cookies | Terms of use