

A.S.2: Analysis of Data: Determine whether the data to be analyzed is univariate or bivariate

1 Which situation is an example of bivariate data?

- 1) shoe sizes of a tennis team
- 2) goals scored in soccer games
- 3) Calories consumed in one day
- 4) hours studying compared to test scores

2 Which situation should be analyzed using bivariate data?

- 1) Ms. Saleem keeps a list of the amount of time her daughter spends on her social studies homework.
- 2) Mr. Benjamin tries to see if his students' shoe sizes are directly related to their heights.
- 3) Mr. DeStefan records his customers' best video game scores during the summer.
- 4) Mr. Chan keeps track of his daughter's algebra grades for the quarter.

3 Which situation is an example of bivariate data?

- 1) the number of pizzas Tanya eats during her years in high school
- 2) the number of times Ezra puts air in his bicycle tires during the summer
- 3) the number of home runs Elias hits per game and the number of hours he practices baseball
- 4) the number of hours Nellie studies for her mathematics tests during the first half of the school year

4 Which situation is represented by bivariate data?

- 1) A student lists her algebra quiz grades for one month.
- 2) A wrestler records his weight before each match.
- 3) A musician writes down how many minutes she practices her instrument each day.
- 4) An ice cream vendor tracks the daily high temperature and how many ice cream bars he sells each day.

5 Which table does *not* show bivariate data?

Height (inches)	Weight (pounds)
39	50
48	70
60	90

1)

Gallons	Miles Driven
15	300
20	400
25	500

2)

Quiz Average	Frequency
70	12
80	15
90	6

3)

Speed (mph)	Distance (miles)
40	80
50	120
55	150

4)

6 Which data table represents univariate data?

1)

Side Length of a Square	Area of Square
2	4
3	9
4	16
5	25

2)

Hours Worked	Pay
20	\$160
25	\$200
30	\$240
35	\$280

3)

Age Group	Frequency
20–29	9
30–39	7
40–49	10
50–59	4

4)

People	Number of Fingers
2	20
3	30
4	40
5	50

7 Which table shows bivariate data?

1)

Age (yr)	Frequency
14	12
15	21
16	14
17	19
18	15

2)

Type of Car	Average Gas Mileage (mpg)
van	25
SUV	23
luxury	26
compact	28
pickup	22

3)

Time Spent Studying (hr)	Test Grade (%)
1	65
2	72
3	83
4	85
5	92

4)

Day	Temperature (degrees F)
Monday	63
Tuesday	58
Wednesday	72
Thursday	74
Friday	78

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Answer Section

1 ANS: 4 REF: 061510ia

2 ANS: 2
The two values are shoe size and height.

REF: fall0714ia

3 ANS: 3 REF: 061206ia

4 ANS: 4 REF: 011504ia

5 ANS: 3 REF: 061011ia

6 ANS: 3
Frequency is not a variable.

REF: 011014ia

7 ANS: 3
Due to lack of specificity in the wording, this 13th question was removed from the June, 2013 Regents Exam.

REF: 061313ia