

Stats /

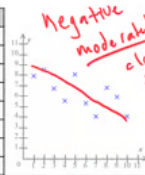
Linear relationship and the sample correlation coefficient

Problem Explanation

Show Another

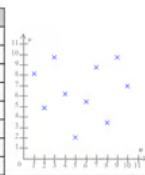
x	y
1.0	7.9
2.0	8.5
3.0	6.7
4.0	5.5
5.0	8.0
6.0	5.3
7.0	4.0
8.0	6.8
9.0	5.9
10.0	4.0

Figure 1



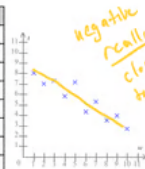
u	v
1.0	8.1
2.0	4.8
3.0	9.7
4.0	6.2
5.0	2.0
6.0	5.4
7.0	8.7
8.0	3.4
9.0	9.7
10.0	6.9

Figure 2



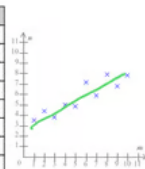
w	t
1.0	8.0
2.0	7.0
3.0	7.3
4.0	5.8
5.0	7.1
6.0	4.3
7.0	5.3
8.0	3.5
9.0	3.9
10.0	2.7

Figure 3



m	n
1.0	3.5
2.0	4.4
3.0	3.8
4.0	5.0
5.0	4.8
6.0	7.1
7.0	5.9
8.0	7.9
9.0	6.8
10.0	7.8

Figure 4



Answer the following questions about the relationships between pairs of variables and the values of r , the sample correlation coefficient. The same response may be the correct answer for more than one question.

1. Which data set indicates the strongest negative linear relationship between its two variables?	Choose one
2. For which data set is the sample correlation coefficient r equal to -1?	Choose one
3. For which data set is the sample correlation coefficient r closest to 0?	Choose one
4. For which data set is the sample correlation coefficient r closest to 1?	Choose one

w, t
 None are in a straight negative line
 u, v
 m, n