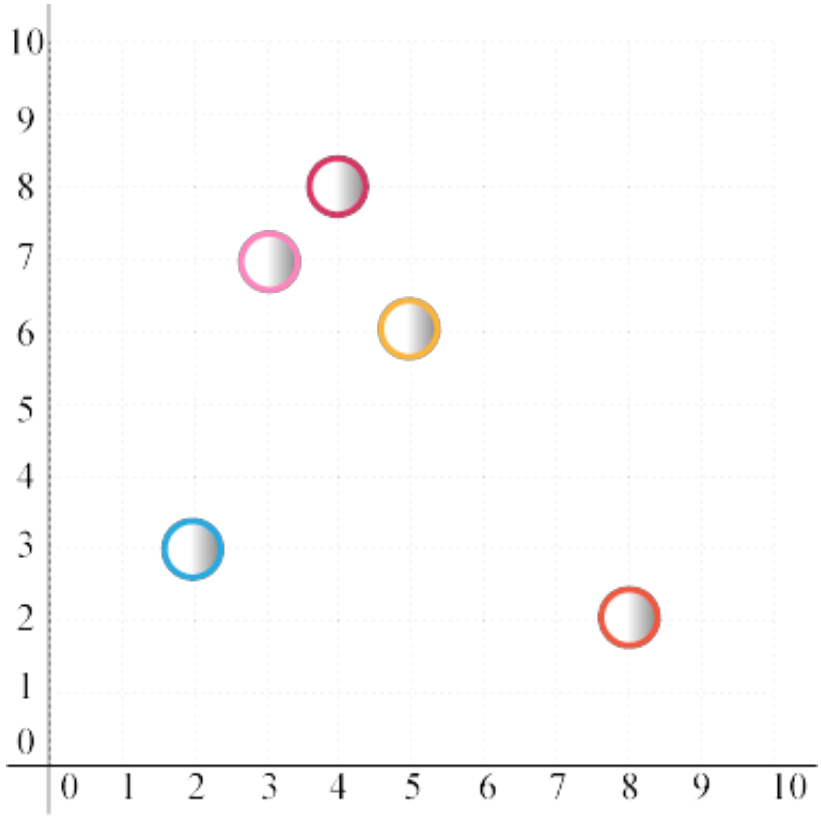
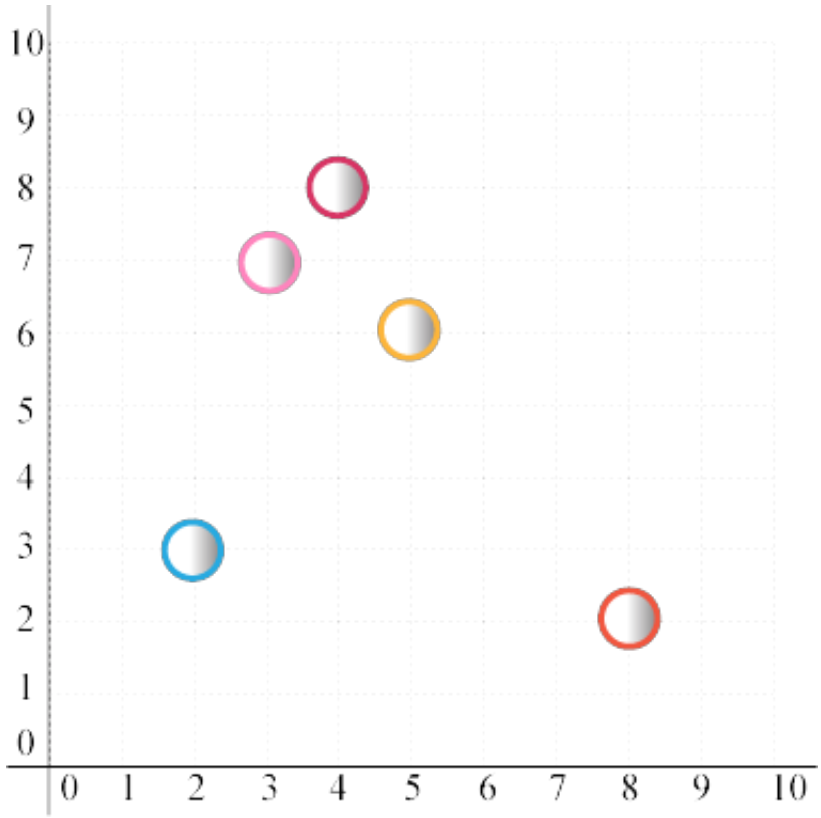
Eighth Grade - Statistics and Probability

1) Determine whether a scatter plot of the data for the following might show a positive, negative, or no relationship. A person's jogging speed and time spent jogging.



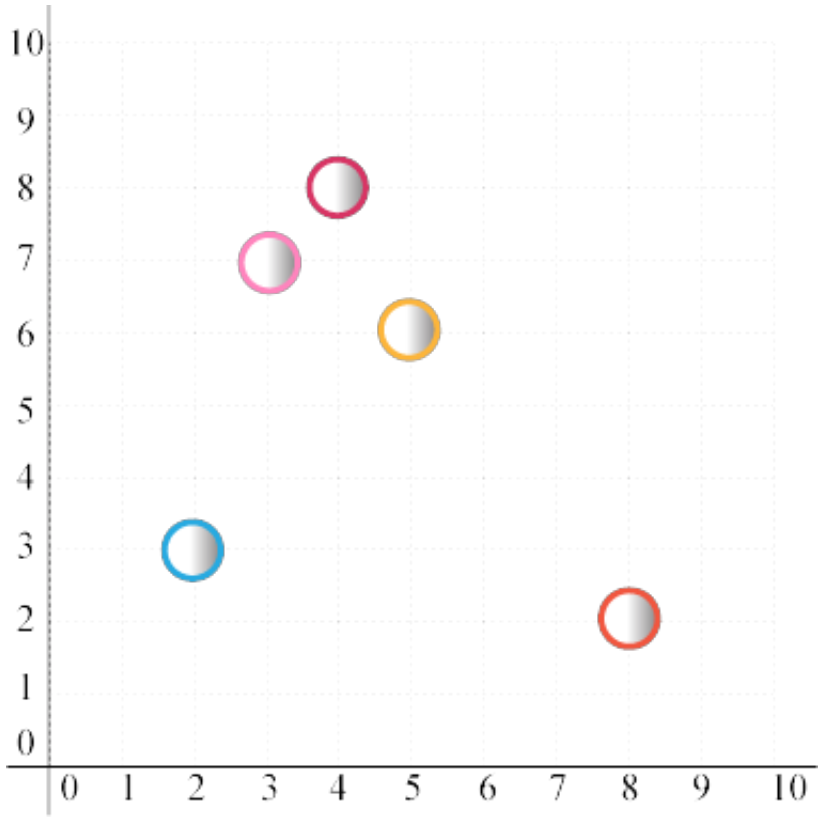
- Negative relationship
- Positive relationship
- Cannot be Determined
- No relationship

2) Determine whether a scatter plot of the data for the following might show a positive, negative, or no relationship. The size of a family and the weekly grocery bill.



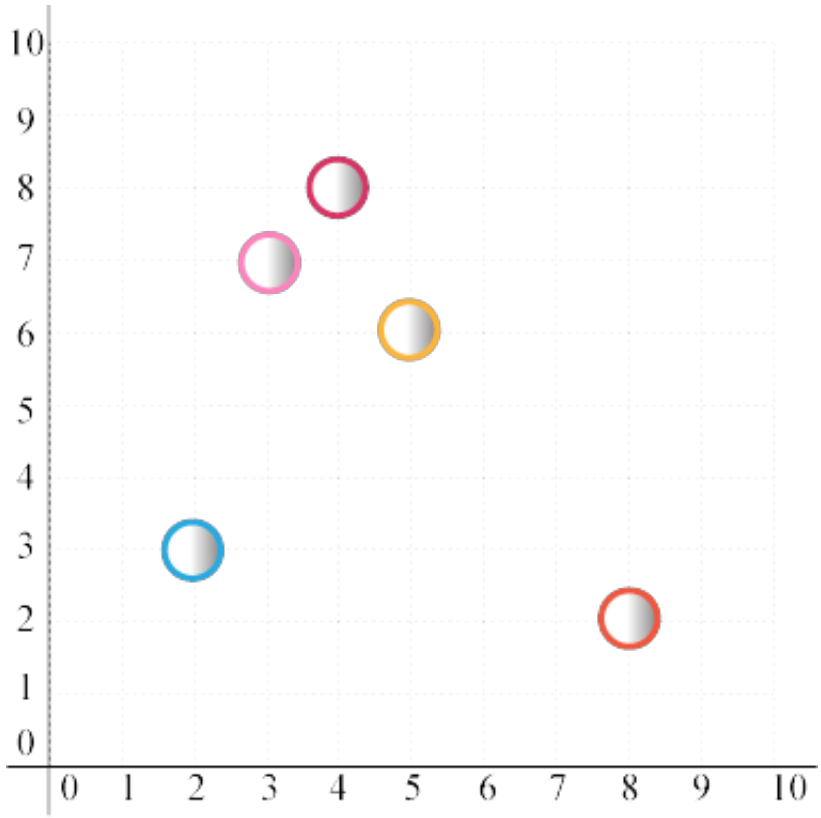
- Positive relationship
- Cannot be Determined
- Negative relationship
- No relationship

3) Determine whether a scatter plot of the data for the following might show a positive, negative, or no relationship. The size of a car and the cost.



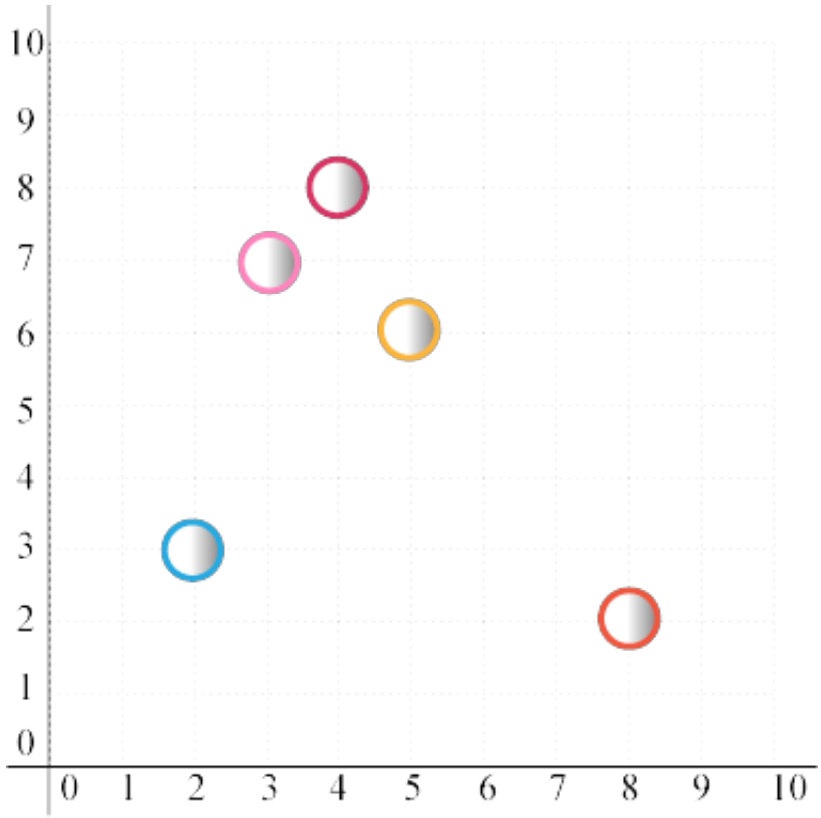
- Negative relationship
- Cannot be Determined
- Positive relationship
- No relationship

4) Determine whether a scatter plot of the data for the following might show a positive, negative, or no relationship. A person's weight and percent body fat



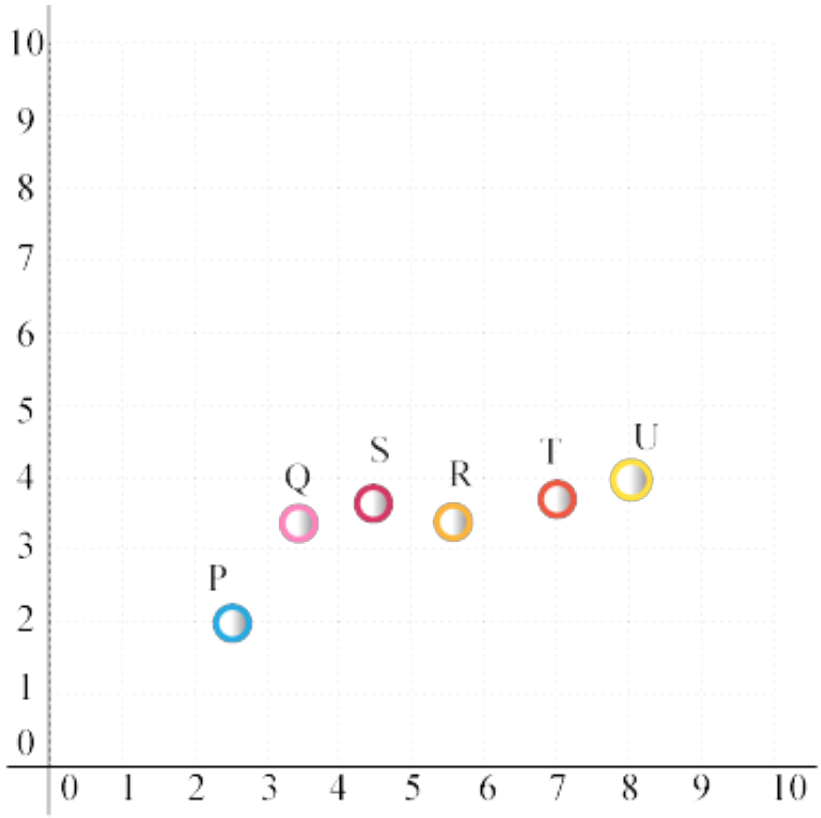
- No relationship
- Negative relationship
- Positive relationship
- Cannot be Determined

5) Determine whether a scatter plot of the data for the following might show a positive, negative, or no relationship. Time spent playing video games and time spent on outdoor activity



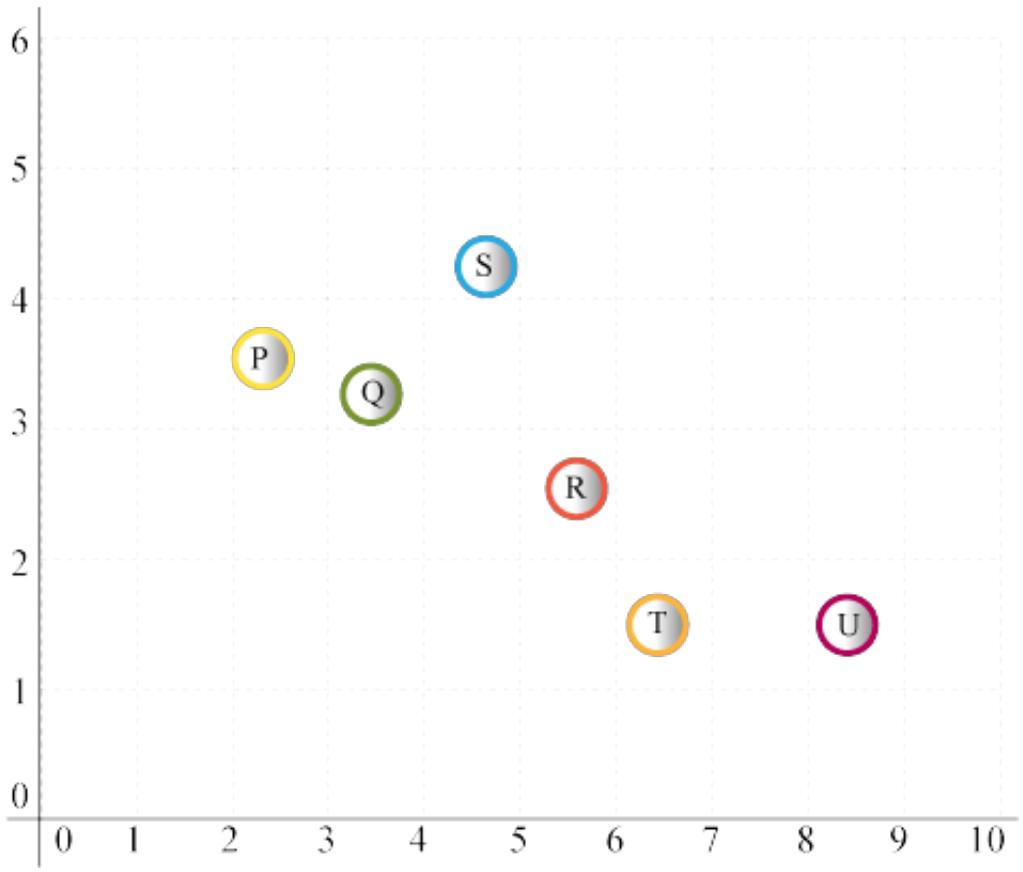
- Cannot be Determined
- Positive relationship
- Negative relationship
- No relationship

6) What kind of trend do you see in the scatter plot?



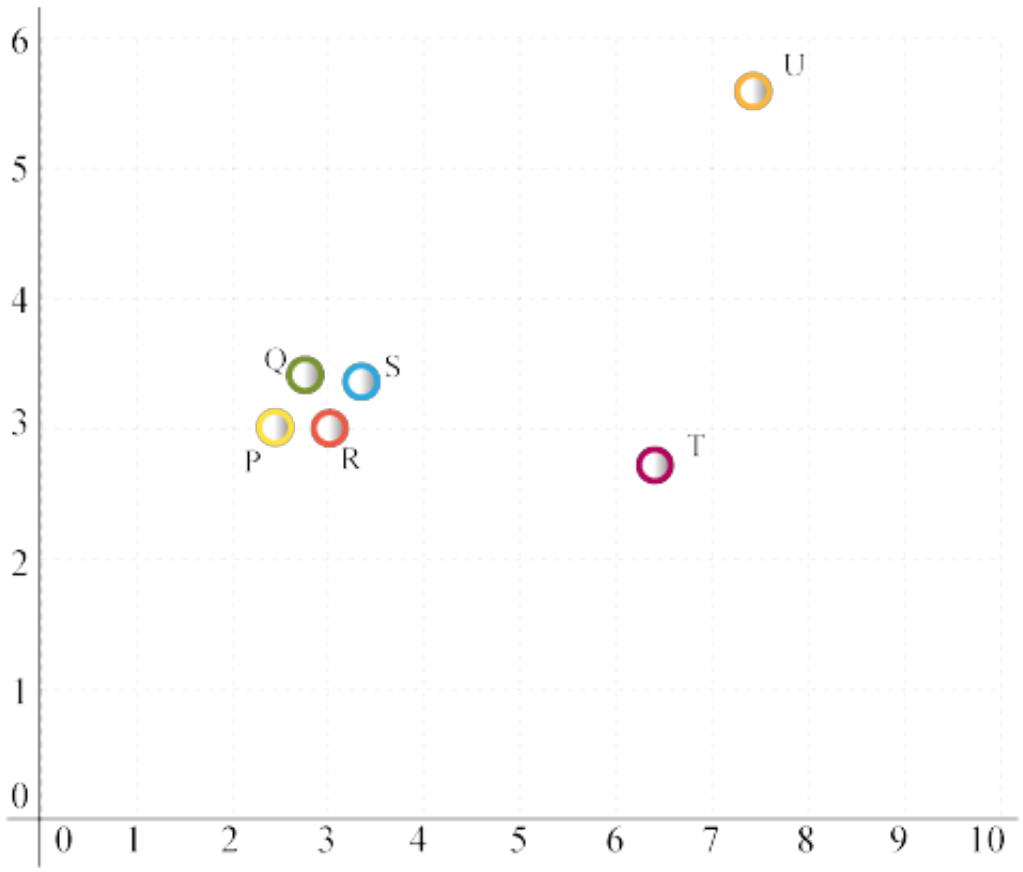
- Negative trend
- No trend
- Positive trend
- Data is insufficient

7) What kind of trend do you see in the scatter plot?



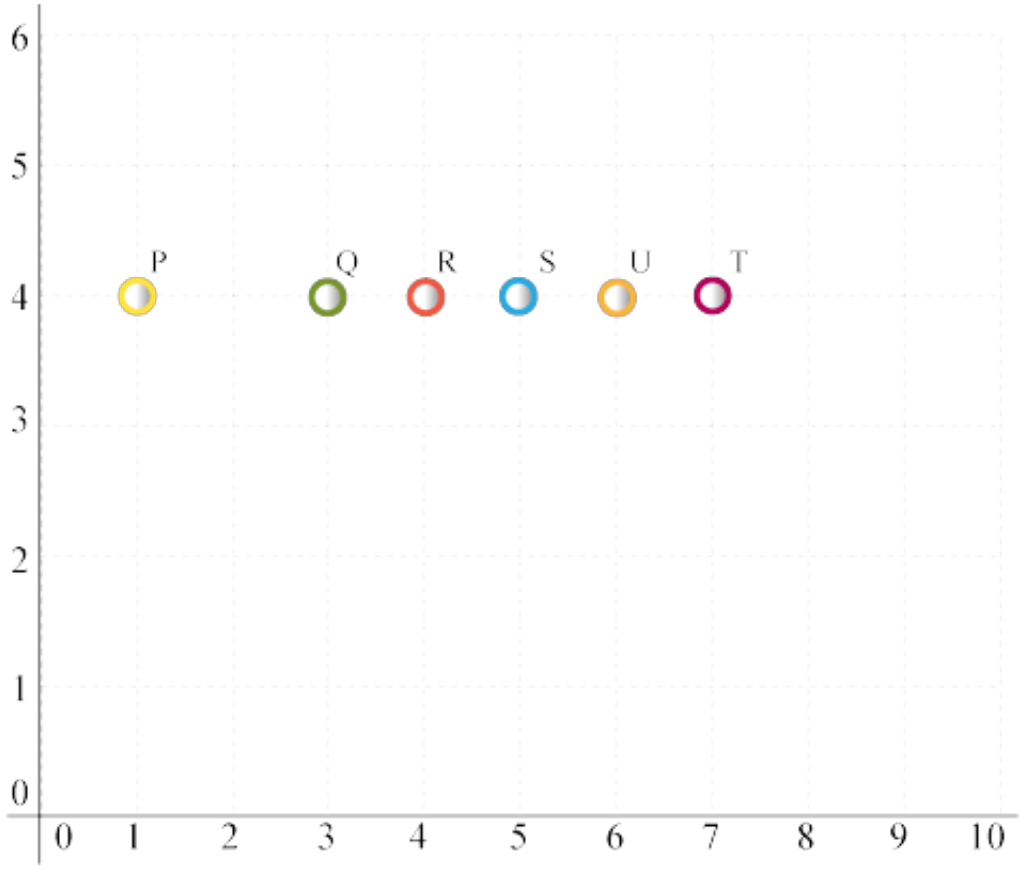
- No trend
- Positive trend
- Data is insufficient
- Negative trend

8) What kind of trend do you see in the scatter plot?



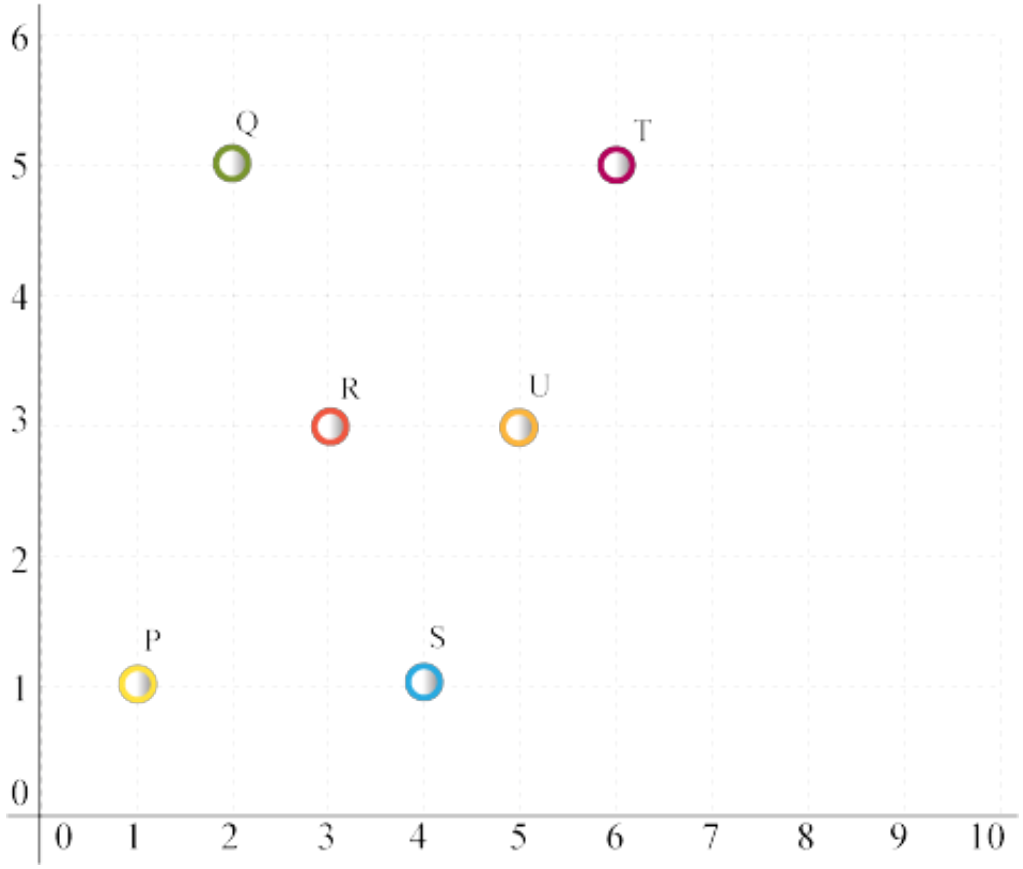
- Negative trend
- Data is insufficient
- Positive trend
- No trend

9) What kind of trend do you see in the scatter plot?



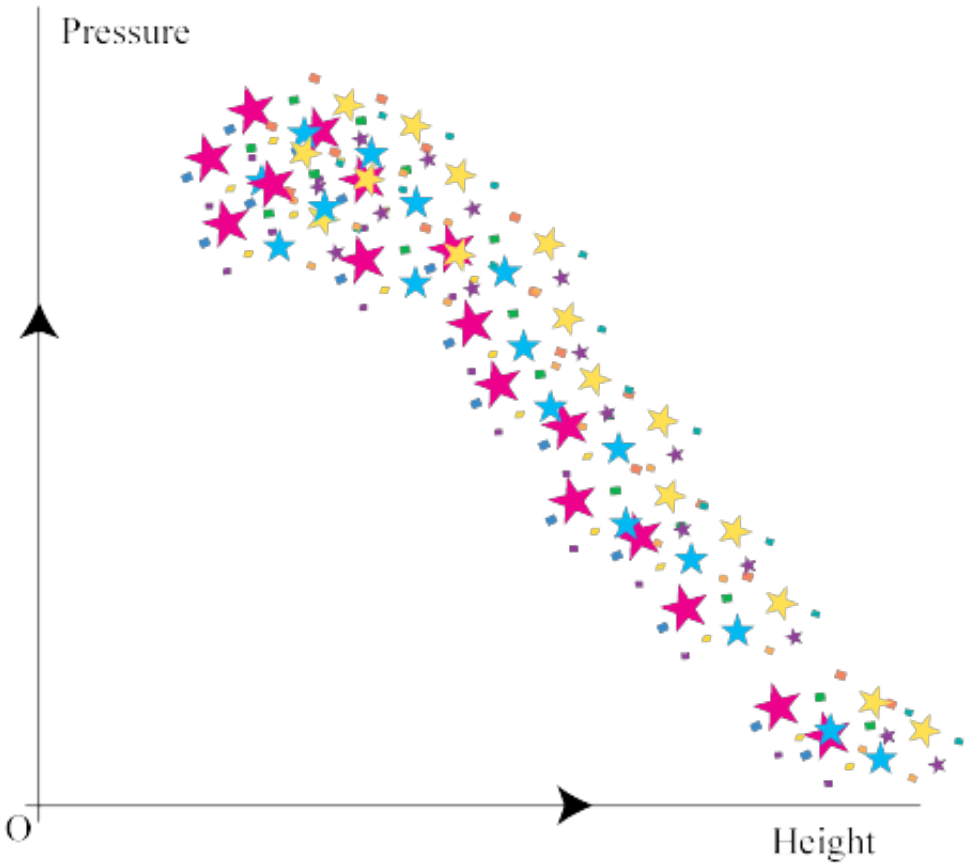
- No trend
- Negative trend
- Positive trend
- Data is insufficient

10) What kind of trend do you see in the scatter plot?



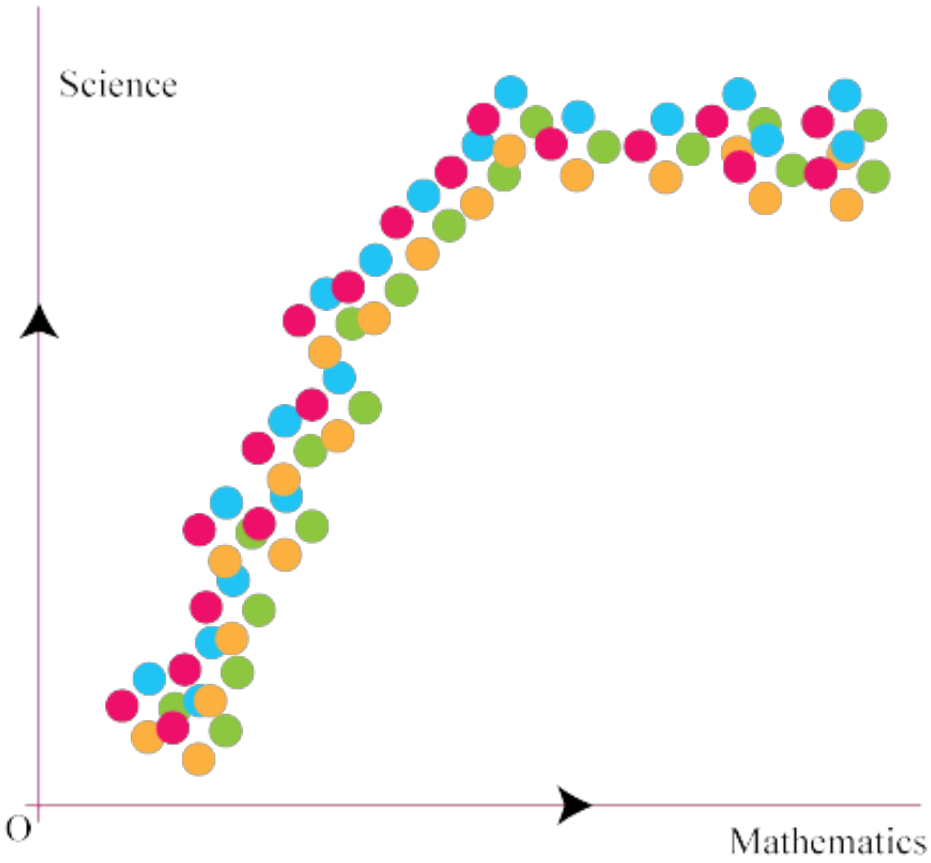
- No trend
- Negative trend
- Data is insufficient
- Positive trend

11) Which of the following is a correct statement based on the scatter plot shown below?



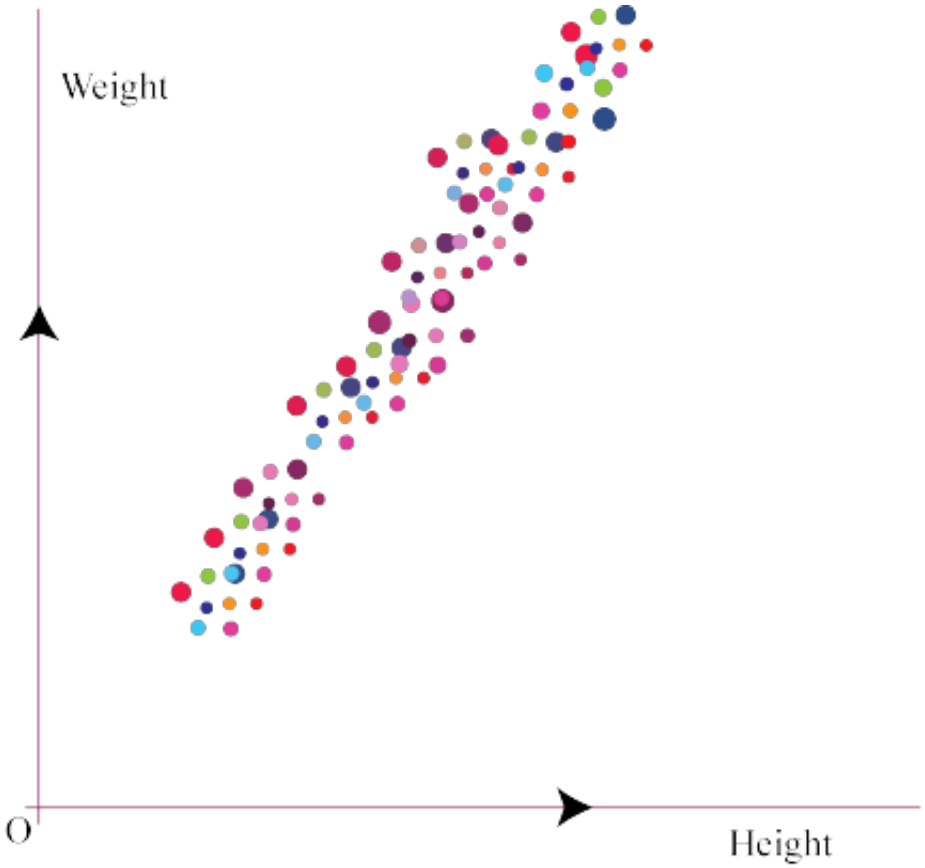
- There is no association between pressure and height
- As pressure increases height also increases
- As pressure decreases height increases
- As pressure decreases height also decreases

12) Which of the following is a correct statement based on the scatter plot shown below?



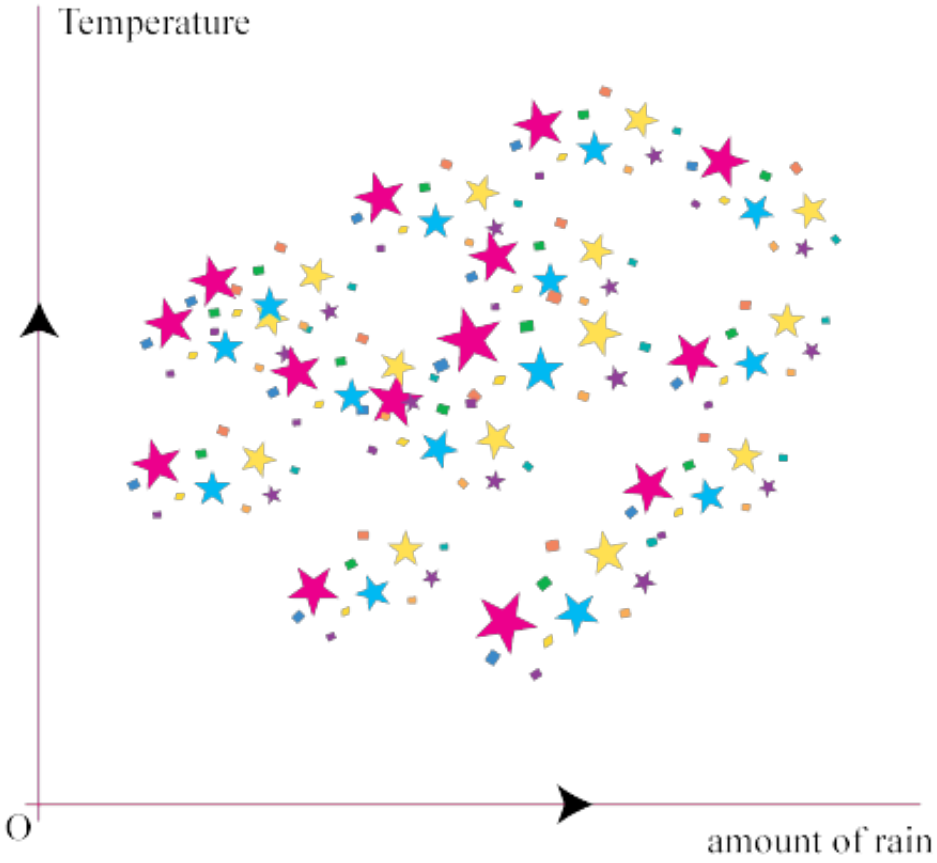
- As maths grade increases science grade also increases
- There is no association between maths grade and science grade
- As maths grade decreases science grade also decreases
- As maths grade decreases science increases

13) Which of the following is a correct statement based on the scatter plot shown below?



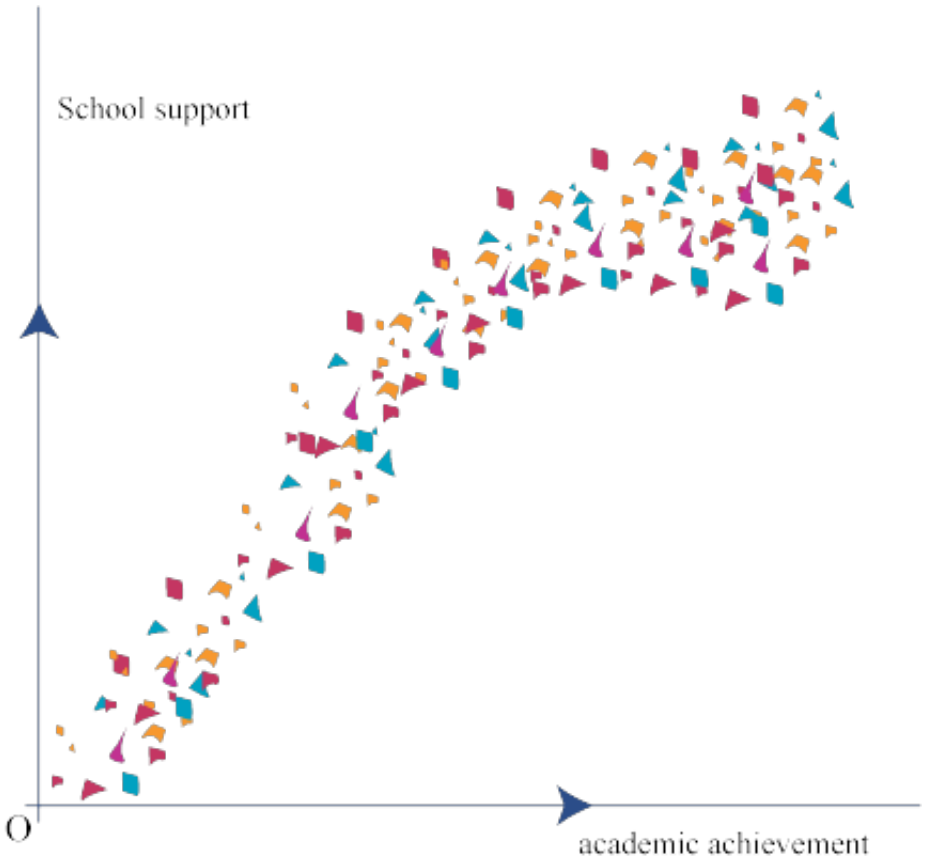
- As weight decreases height also decreases
- As weight decreases height increases
- There is no association between weight and height
- As weight increases height also increases

14) Which of the following is a correct statement based on the scatter plot shown below?



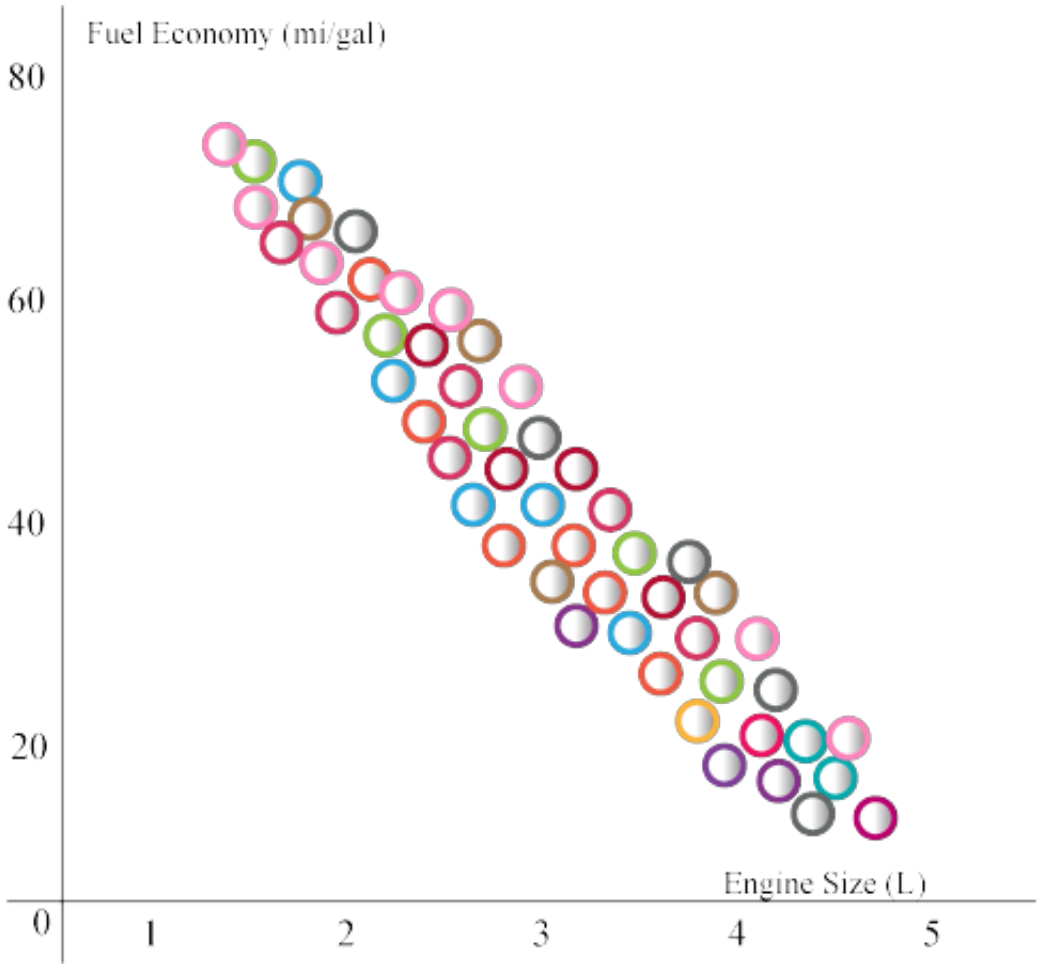
- There is a strong positive relation between the variables
- There is a positive relation between the variables
- There is a strong negative relation between the variables
- There is a no relation between the variables

15) Which of the following is a correct statement based on the scatter plot shown below?



- There is a strong negative relation between the variables
- There is a positive relation between the variables
- There is a negative relation between the variables.
- There is a no relation between the variables

16) Write positive association, negative association, no association or non-linear association to describe the relationship

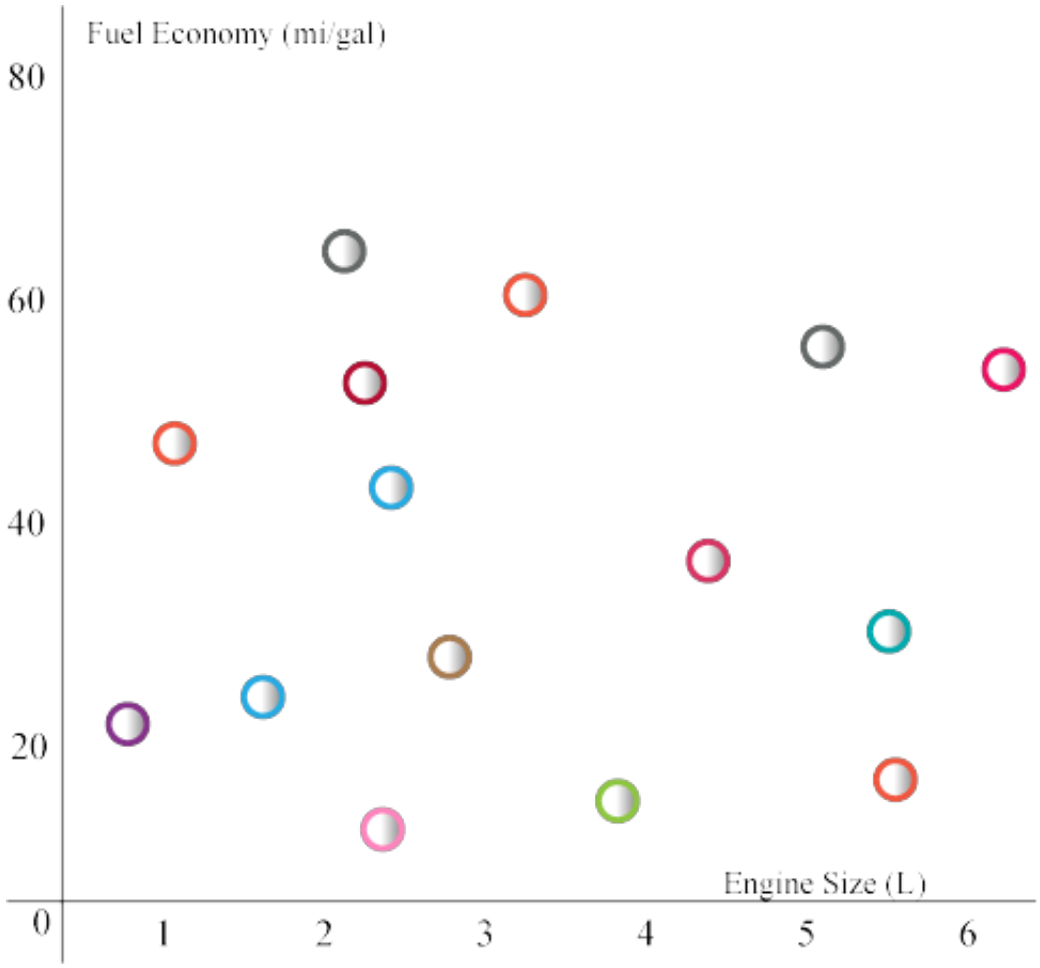


- No Association
- Negative Linear Association
- Positive Linear Association
- Non-linear Association

17) Write positive association, negative association, no association or non-linear association to describe the relationship

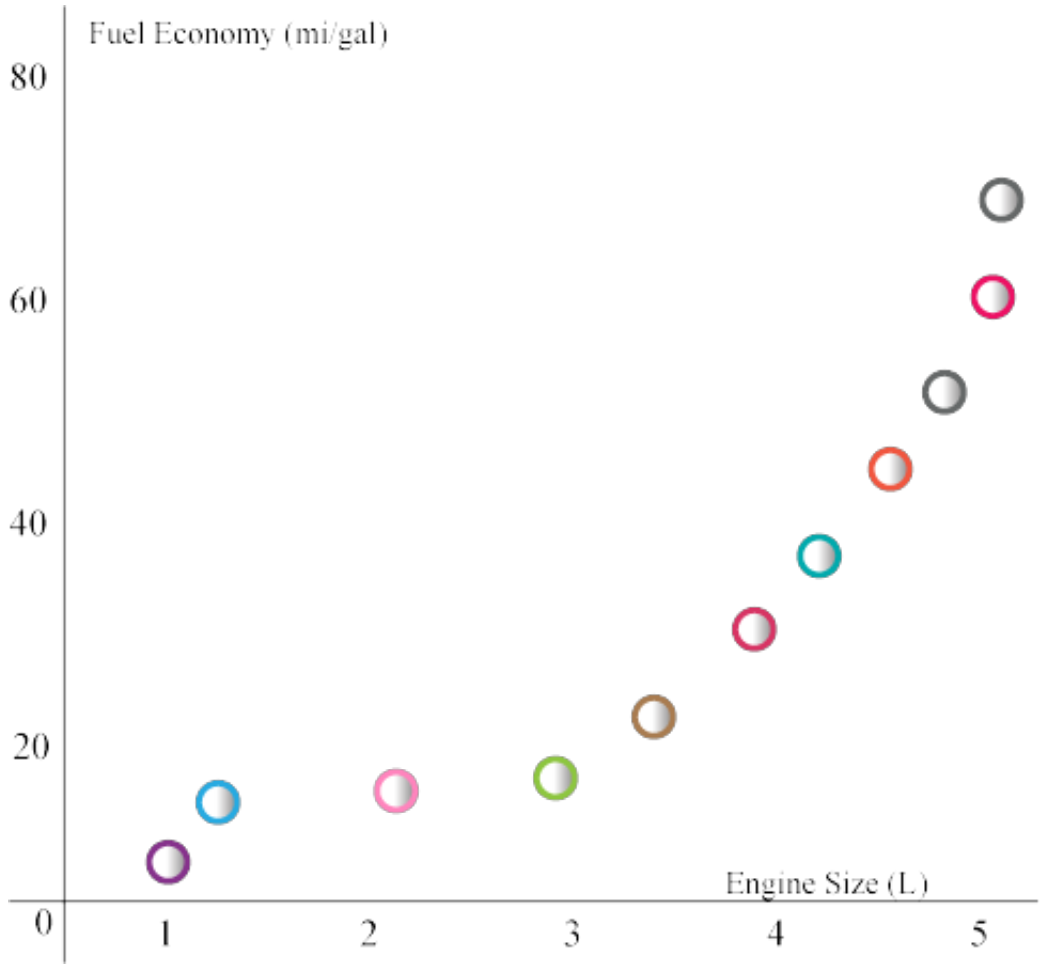
- Non-linear Association
- Negative Linear Association
- No Association
- Positive Linear Association

18) Write positive association, negative association, no association or non-linear association to describe the relationship.



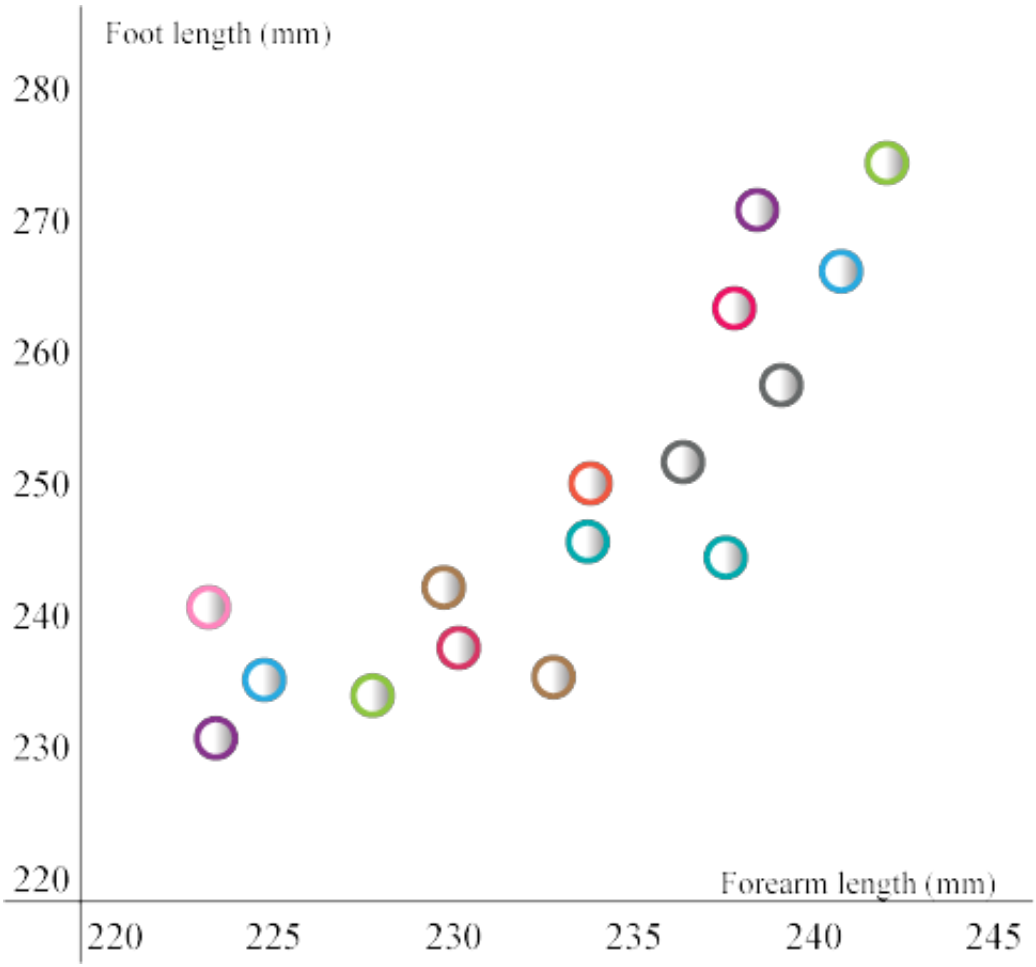
- No Association
- Non-linear Association
- Positive Linear Association
- Negative Linear Association

19) Write positive association, negative association, no association or non-linear association to describe the relationship



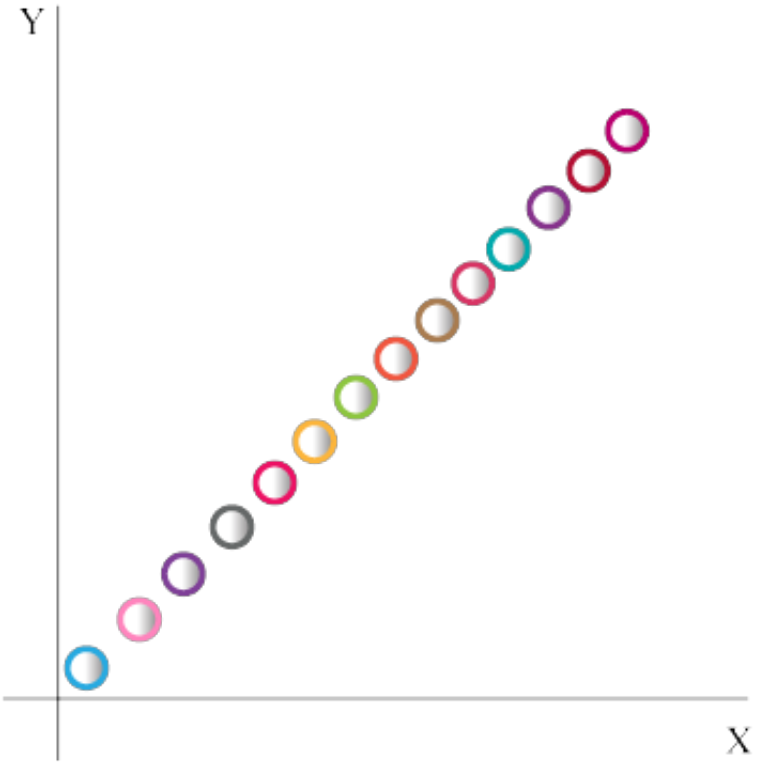
- Non-linear Association
- Negative Linear Association
- No Association
- Positive Linear Association

20) Select the best description the association between forearm length and foot length



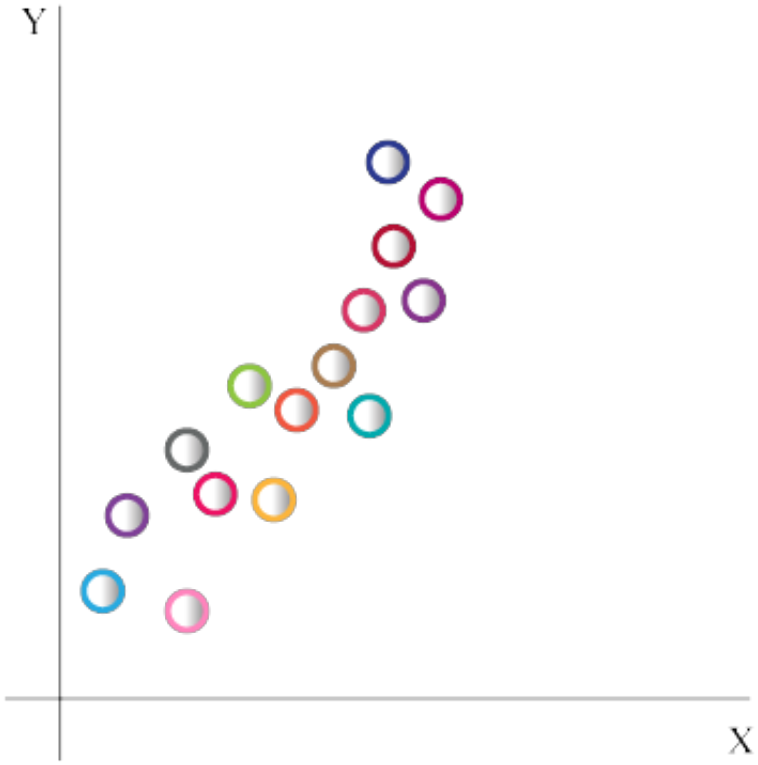
- No association
- Positive association
- We cannot fit a straight line
- Negative association

21) Match these labels to the diagrams:“no association”, “strong positive association”,“weak positive association”,“perfect positive association”, "perfect negative association", "weak negative association"



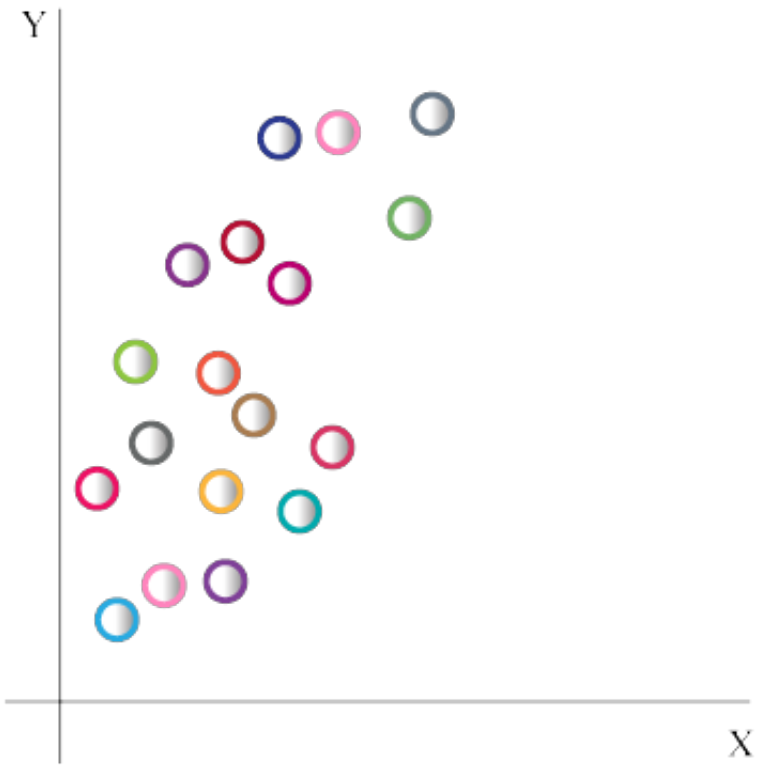
- Weak negative association
- Weak positive association
- No association
- Strong positive association

22) Match these labels to the diagrams:“no association”, “strong positive association”,“weak positive association”,“perfect positive association”, "perfect negative association", "weak negative association", "strong negative association", “Non-linear association"



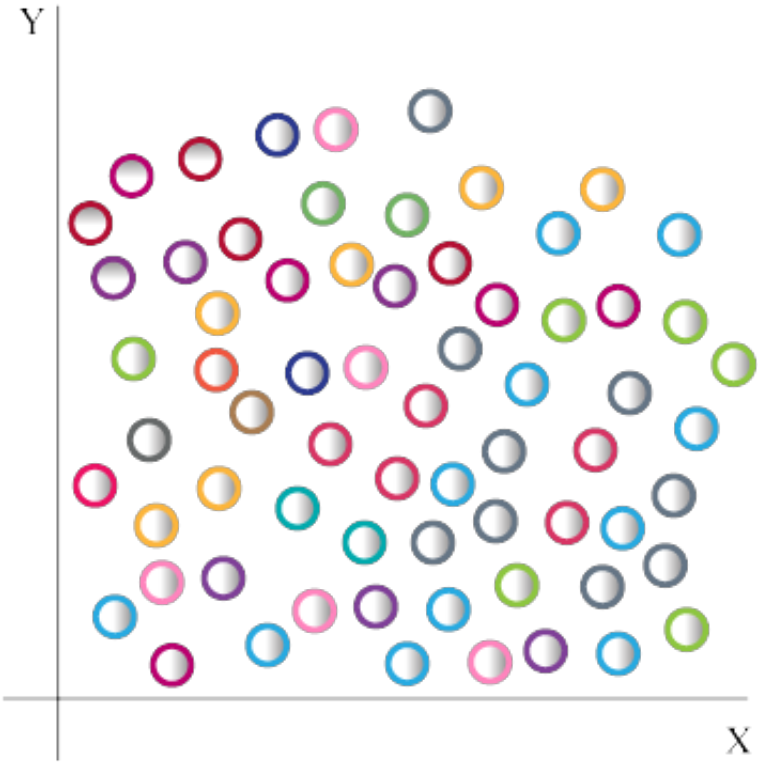
- No association
- Weak negative association
- Strong positive association
- Weak positive association

23) Match these labels to the diagrams:“no association”, “strong positive association”,“weak positive association”,“perfect positive association”, "perfect negative association", "weak negative association", "strong negative association", “Non-linear association"



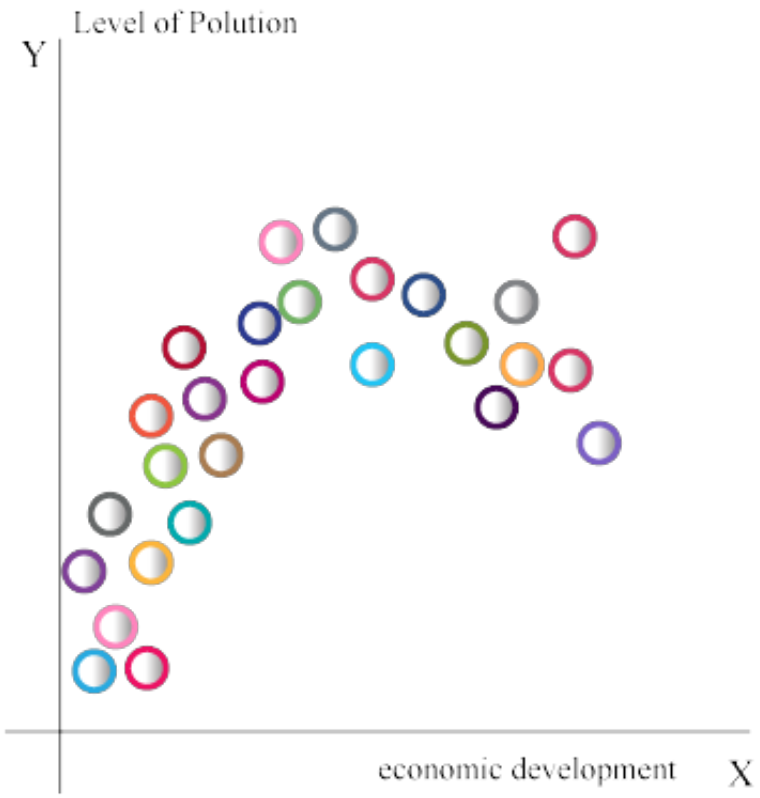
- Weak positive association
- Weak negative association
- Strong positive association
- No association

24) Match these labels to the diagrams:“no association”, “strong positive association”,“weak positive association”,“perfect positive association”, "perfect negative association", "weak negative association", "strong negative association", “Non-linear association"



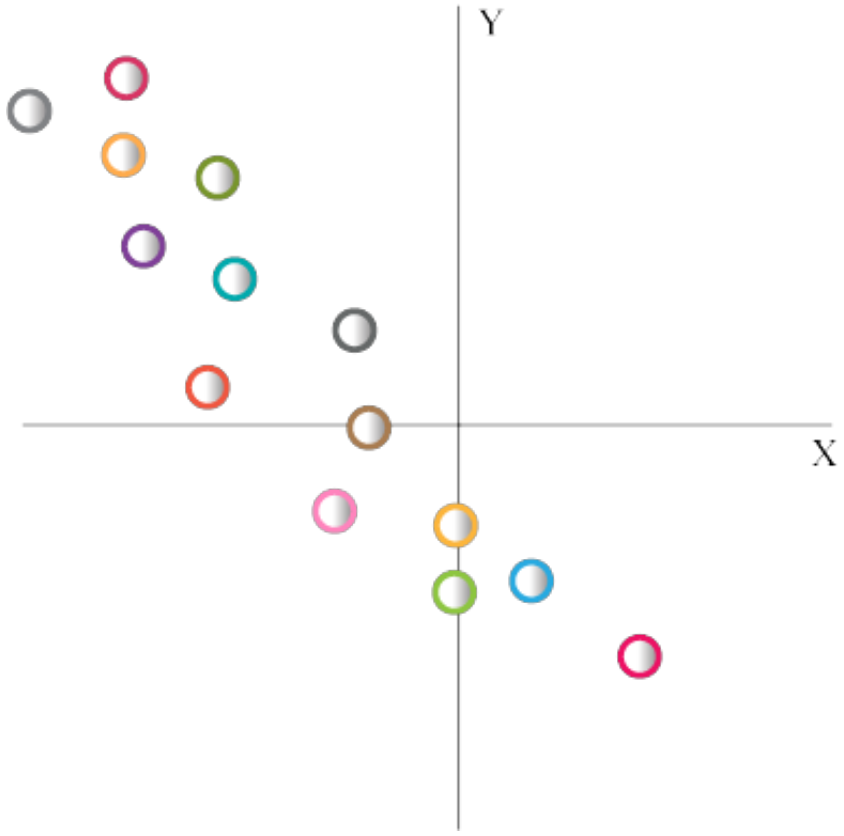
- Non-linear association
- No association, or no correlation between X and Y
- Perfect positive association
- Strong positive association

25) Match these labels to the diagrams:“no association”, “strong positive association”,“weak positive association”,“perfect positive association”, "perfect negative association", "weak negative association", "strong negative association"



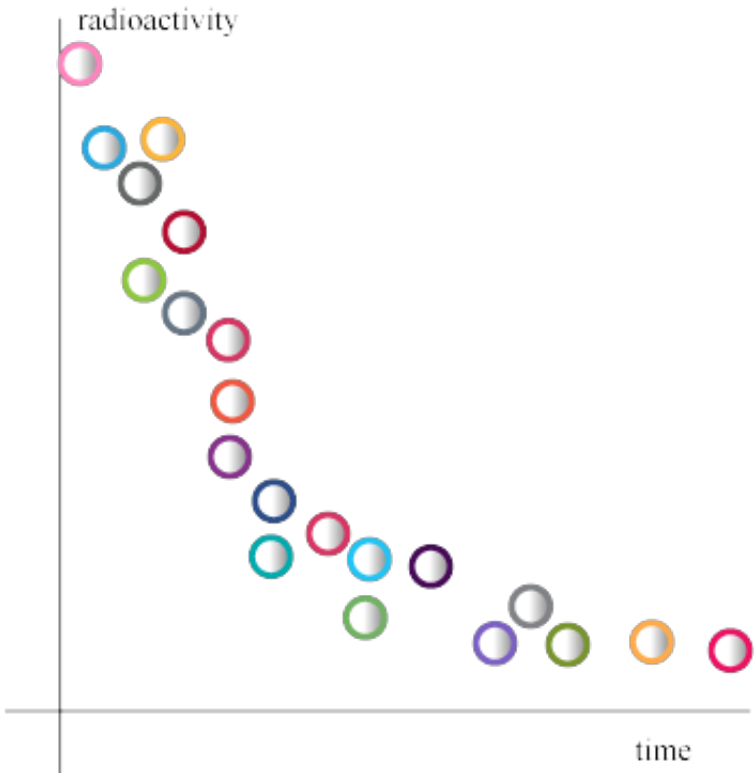
- Non-linear association
- Perfect positive association
- Strong negative association
- Weak negative association

26) Match these labels to the diagrams:“no association”, “strong positive association”,“weak positive association”,“perfect positive association”, "perfect negative association", "weak negative association", "strong negative association", “Non-linear association"



- Strong negative association
- Perfect positive association
- Non-linear association
- Weak negative association

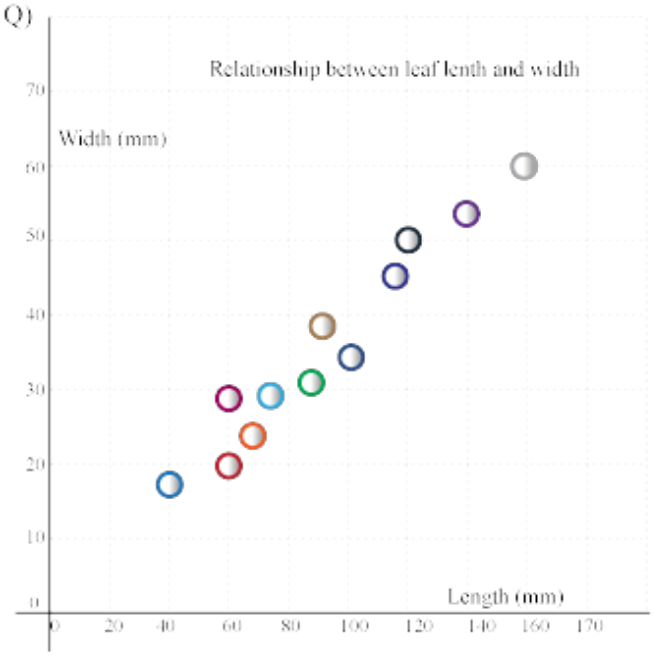
27) Match these labels to the diagrams:“no association”, “strong positive association”,“weak positive association”,“perfect positive association”, "perfect negative association", "weak negative association", "strong negative association", “Non-linear association"



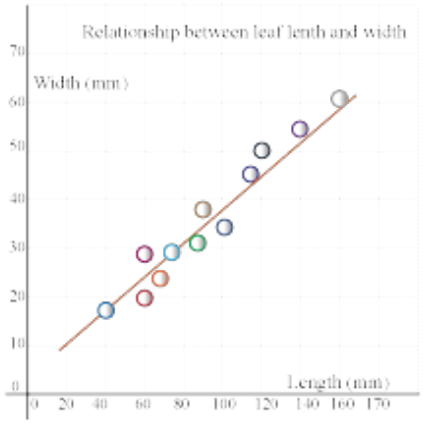
- Strong negative association
- Weak negative association
- Non-linear association
- Perfect positive association

28) The length and width of 10 leaves are shown below on the scatter diagram, using a straight edge draw a suitable line of best fit

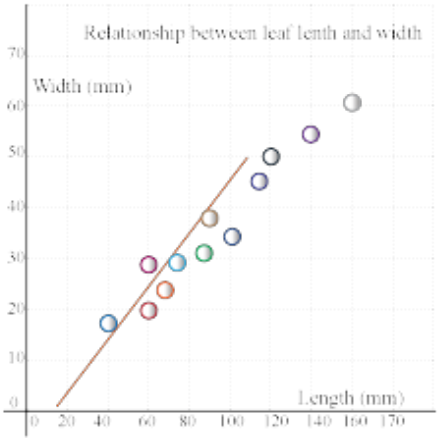
Q)



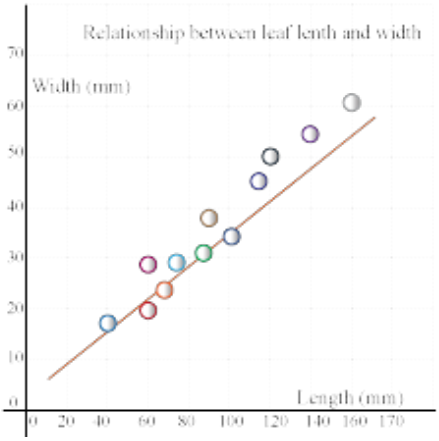
a)



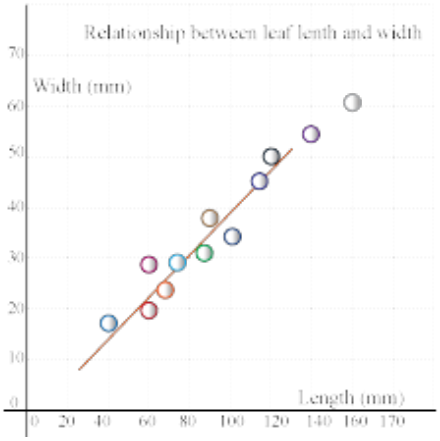
b)



c)

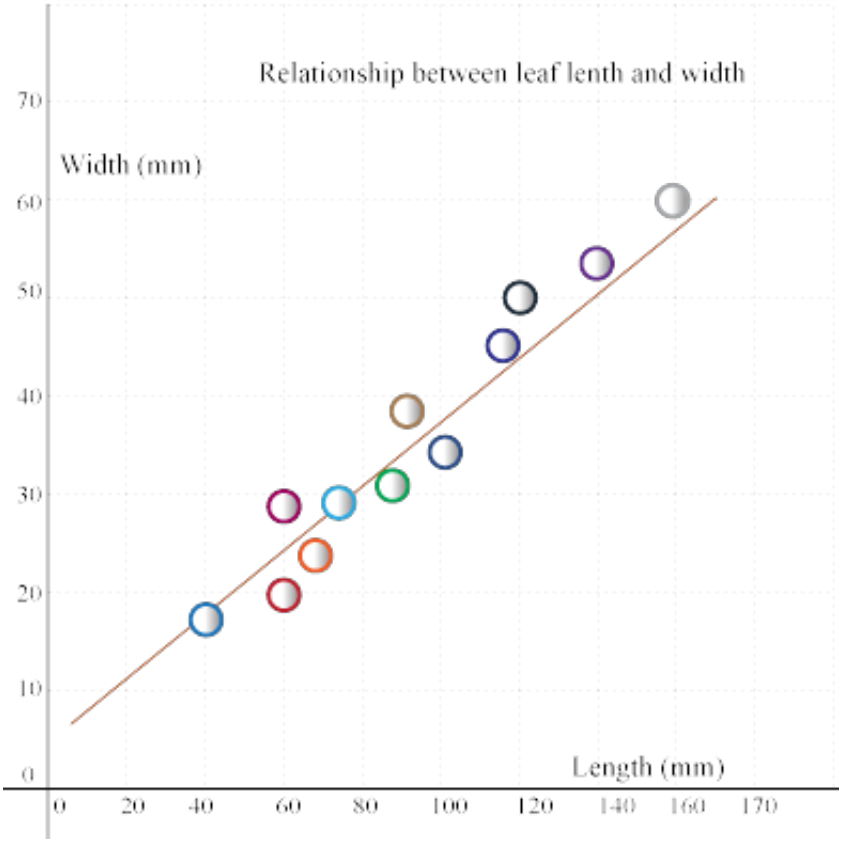


d)



- d
- c
- a
- b

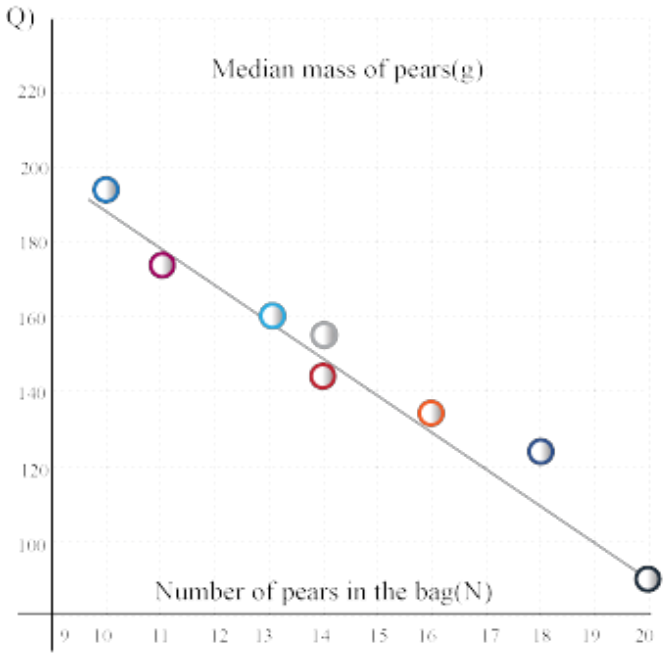
29) The length and width of 10 leaves are shown below on the scatter diagram, write a sentence describing the relationship between leaf length and leaf width for this sample.



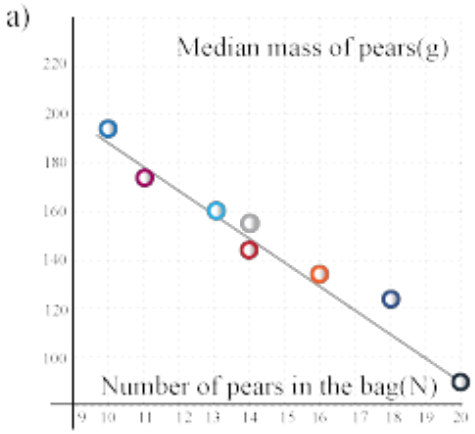
- Length increases, width decreases
- Length decreases, width decreases
- Length increases, width increases
- Length decreases, width increases

30) Emily is investigating the sizes of pears in 2 kg bags with the help of the scatter diagram shown below: Using straight edge draw a suitable line of best fit.

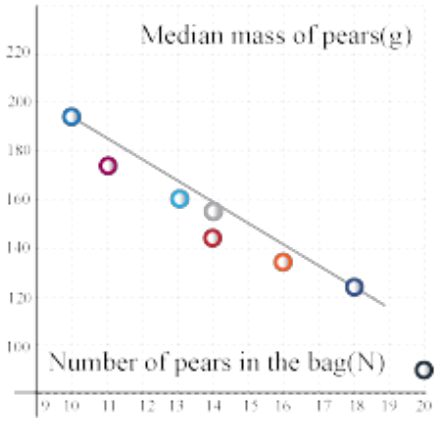
Q)


Median mass of pears(g)
220
200
180
160
140
120
100
Number of pears in the bag(N)
9 10 11 12 13 14 15 16 17 18 19 20

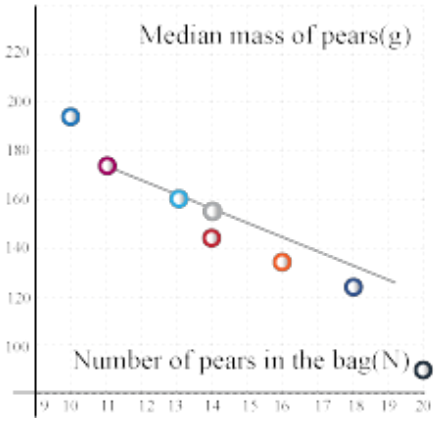
a)


Median mass of pears(g)
220
200
180
160
140
120
100
Number of pears in the bag(N)
9 10 11 12 13 14 15 16 17 18 19 20

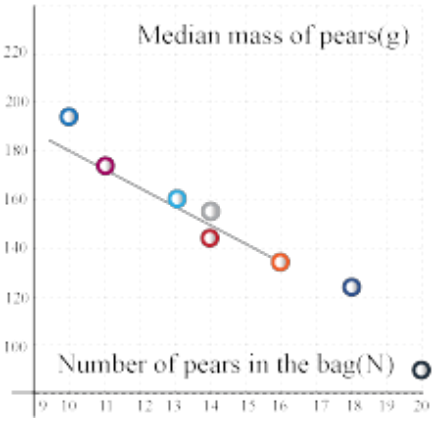
b)


Median mass of pears(g)
220
200
180
160
140
120
100
Number of pears in the bag(N)
9 10 11 12 13 14 15 16 17 18 19 20

c)


Median mass of pears(g)
220
200
180
160
140
120
100
Number of pears in the bag(N)
9 10 11 12 13 14 15 16 17 18 19 20

d)


Median mass of pears(g)
220
200
180
160
140
120
100
Number of pears in the bag(N)
9 10 11 12 13 14 15 16 17 18 19 20

- b
- d
- c
- a