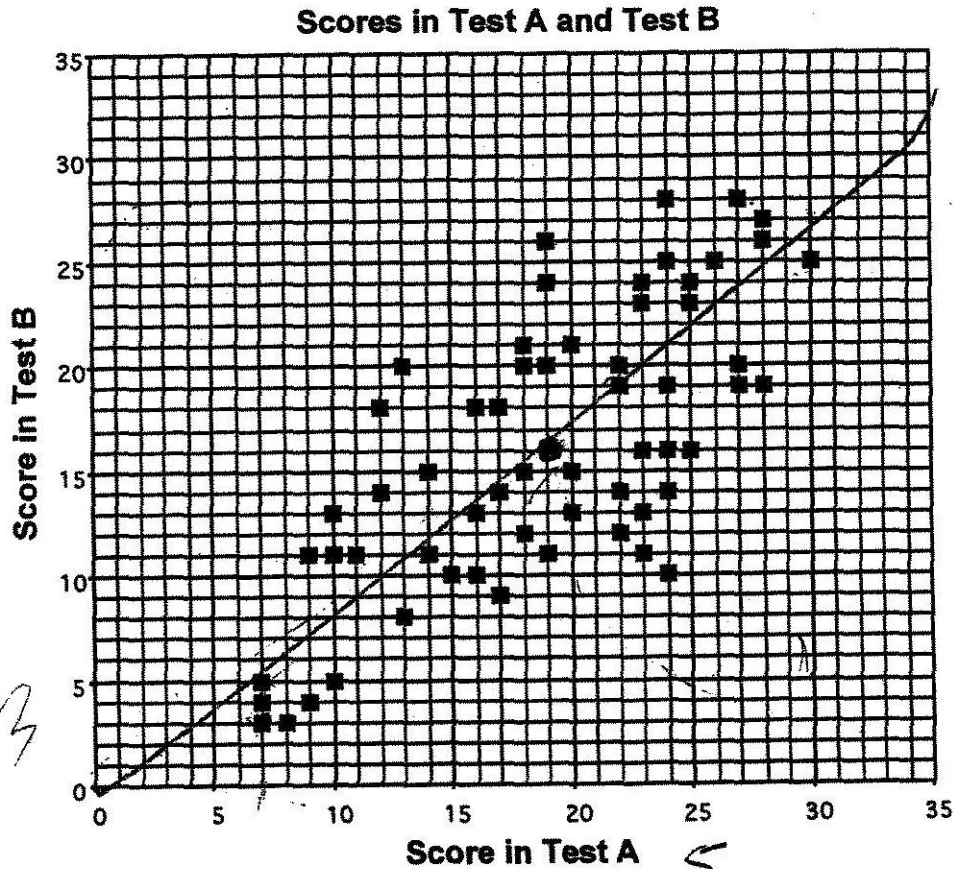# Scatter Diagram

This problem gives you the chance to:
• discuss and understand a scatter plot of real data

T1

A group of 66 students took two tests; Test A and Test B.
In the scatter diagram, each square represents one student and shows the scores that student got in the two tests.

Scores in Test A and Test B

3-28

1. The mean score for Test A was 19 and the mean score for Test B was 16.

   Plot a point to show this on the scatter diagram.

2. Draw a line of best fit on the scatter diagram.

   How can a line of best fit be used?

   To find the average score
   on Test B when you know the
   score for Test A or to find
   the score for test A when
   you known the score
   for test B.

Scatter Diagram   Test 9

3. Here are five statements about the scores shown on the scatter diagram.

   If a statement is true check (√) it.

   If it is not true, write a correct statement.

Statement	Check (√) or write correct statement
The scatter diagram shows positive correlation between the scores on Test A and the scores on Test B.	✓
The lowest score on Test A is lower than the lowest score for Test B.	NO The lowest score on Test A is higher than the lowest score for Test
The range of scores on Test B is 25.	✓
The student with the highest score on Test A also has the highest score on Test B.	The student w/ the highest score for Test A has the 6th highest score on test B.
The biggest difference between a student's scores on the two tests is 5.	NO the biggest difference is 14

Scatter Diagram   Test 9
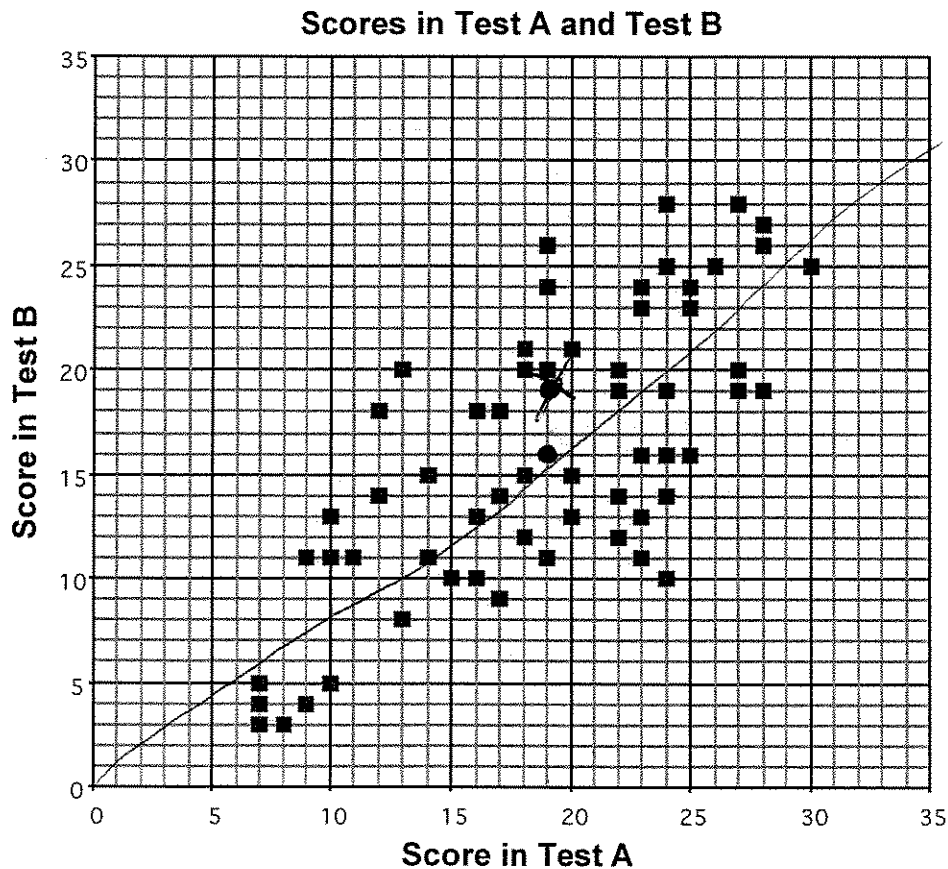
T1

Scatter Diagram

This problem gives you the chance to:
• discuss and understand a scatter plot of real data

T2

A group of 66 students took two tests; Test A and Test B.
In the scatter diagram, each square represents one student and shows the scores that student got in the two tests.

Scores in Test A and Test B

1. The mean score for Test A was 19 and the mean score for Test B was 16.

   Plot a point to show this on the scatter diagram.

2. Draw a line of best fit on the scatter diagram.
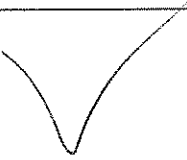
   How can a line of best fit be used?

   To find an estimate of unknown test score
   when you know the other.

Scatter Diagram   Test 9

3. Here are five statements about the scores shown on the scatter diagram.

   If a statement is true check (√) it.

   If it is not true, write a correct statement.

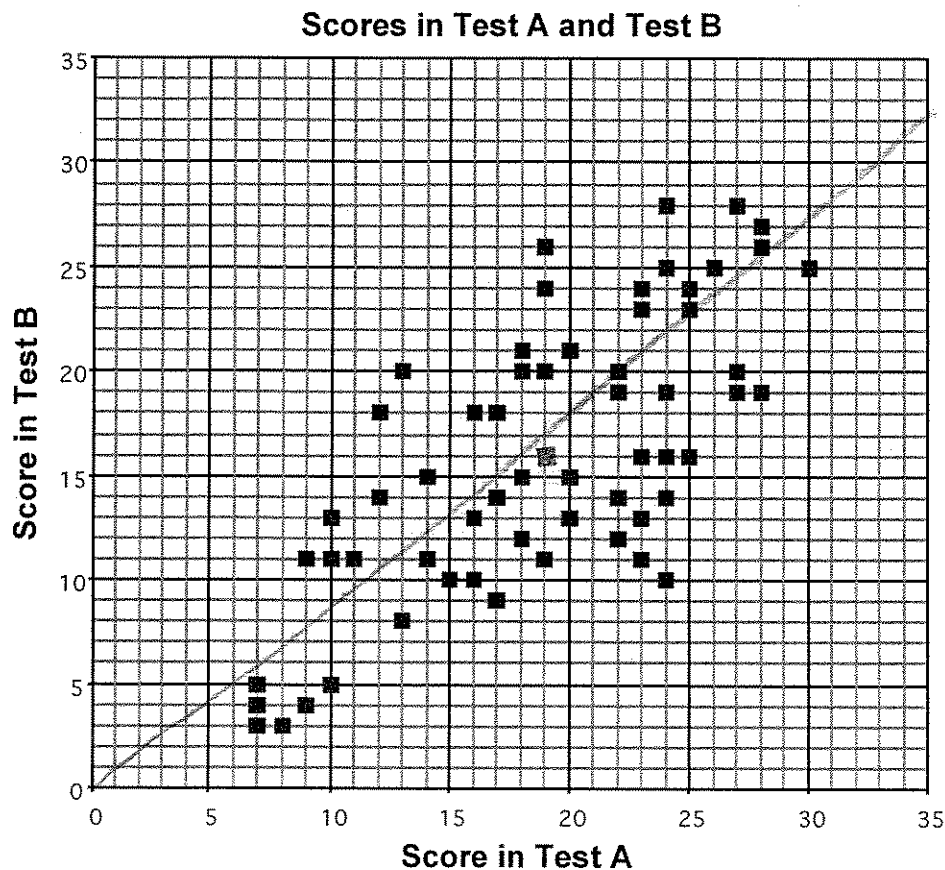| Statement	Check (√) or write correct statement
The scatter diagram shows positive correlation between the scores on Test A and the scores on Test B.	√
The lowest score on Test A is lower than the lowest score for Test B.	The lowest test score for Test A and B are the same.
The range of scores on Test B is 25.	√
The student with the highest score on Test A also has the highest score on Test B.	√
The biggest difference between a student's scores on the two tests is 5.	√

T2

8

Scatter Diagram

This problem gives you the chance to:
• discuss and understand a scatter plot of real data

A group of 66 students took two tests; Test A and Test B.
In the scatter diagram, each square represents one student and shows the scores that student got in the two tests.

Scores in Test A and Test B

1. The mean score for Test A was 19 and the mean score for Test B was 16.

   Plot a point to show this on the scatter diagram.

2. Draw a line of best fit on the scatter diagram.

   How can a line of best fit be used?

   To show the average test scores

3. Here are five statements about the scores shown on the scatter diagram.

If a statement is true check (√) it.

If it is not true, write a correct statement.

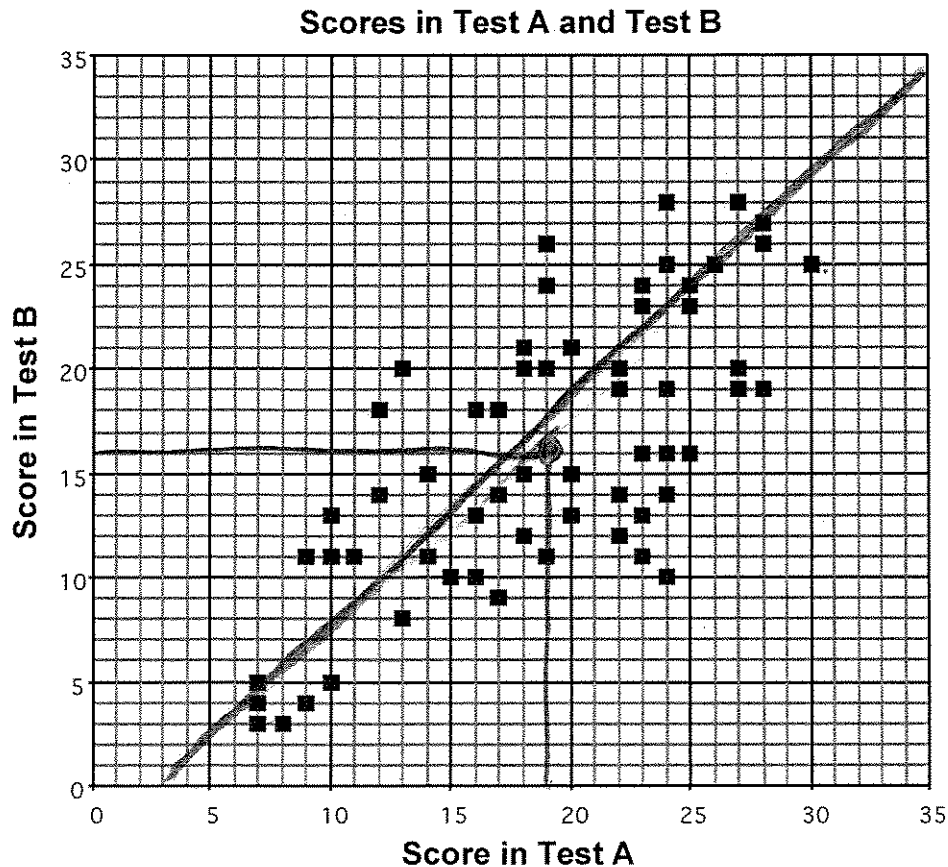| Statement	Check (√) or write correct statement
The scatter diagram shows positive correlation between the scores on Test A and the scores on Test B.	√
The lowest score on Test A is lower than the lowest score for Test B.	The lowest score on test A is 4 better the the lowest on B.
The range of scores on Test B is 25.	√
The student with the highest score on Test A also has the highest score on Test B.	The highest score on test A is a higher than the highest score on B
The biggest difference between a student's scores on the two tests is 5.	The biggest difference between a students scores on the two tests is 14.

8

Scatter Diagram

This problem gives you the chance to:
- discuss and understand a scatter plot of real data

T4

A group of 66 students took two tests; Test A and Test B.
In the scatter diagram, each square represents one student and shows the scores that student got in the two tests.

Scores in Test A and Test B

1. The mean score for Test A was 19 and the mean score for Test B was 16.

   Plot a point to show this on the scatter diagram.

2. Draw a line of best fit on the scatter diagram.

   How can a line of best fit be used?

   with a ruler.

Scatter Diagram   Test 9

3. Here are five statements about the scores shown on the scatter diagram.

   If a statement is true check (√) it.

   If it is not true, write a correct statement.

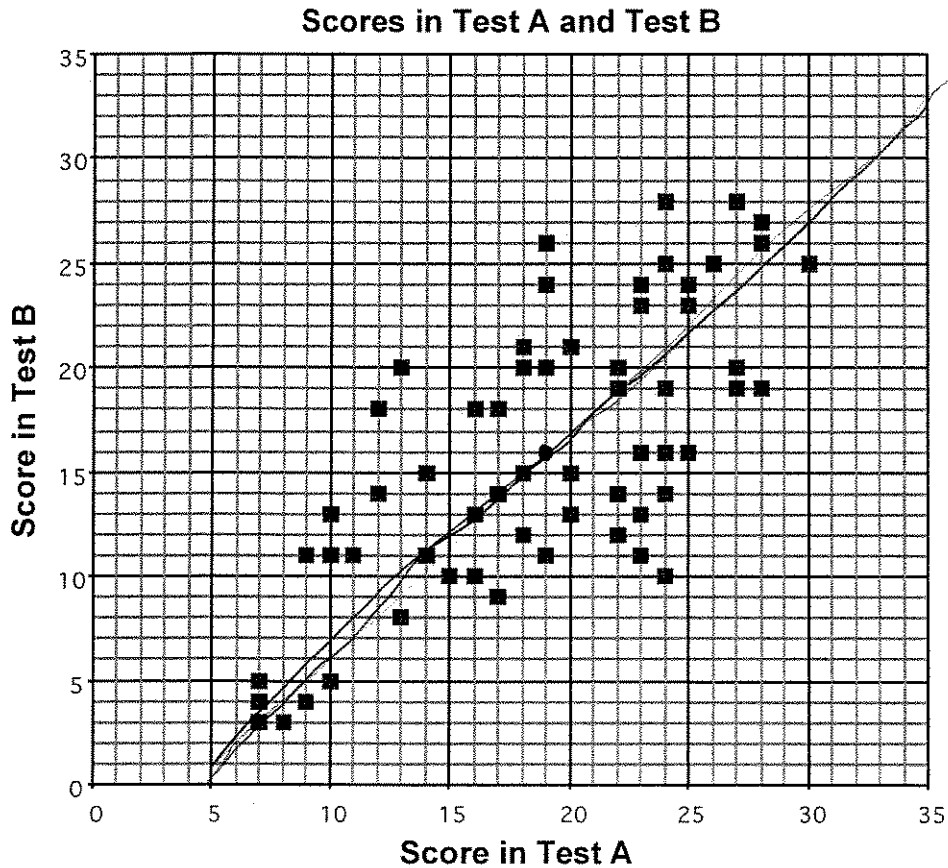| Statement	Check (√) or write correct statement
The scatter diagram shows positive correlation between the scores on Test A and the scores on Test B.	√
The lowest score on Test A is lower than the lowest score for Test B.	The lowest score on Test A is larger than the lowest score on Test B
The range of scores on Test B is 25.	√
The student with the highest score on Test A also has the highest score on Test B.	is 30 25
The biggest difference between a student's scores on the two tests is 5.	√

8

Scatter Diagram

This problem gives you the chance to:
• discuss and understand a scatter plot of real data

T5

A group of 66 students took two tests; Test A and Test B.
In the scatter diagram, each square represents one student and shows the scores that student got in the two tests.

Scores in Test A and Test B

1. The mean score for Test A was 19 and the mean score for Test B was 16.

   Plot a point to show this on the scatter diagram.

2. Draw a line of best fit on the scatter diagram.

   How can a line of best fit be used?

   To show where an ~~order~~ average score is.

Scatter Diagram   Test 9

3. Here are five statements about the scores shown on the scatter diagram.

   If a statement is true check (√) it.

   If it is not true, write a correct statement.

| Statement	Check (√) or write correct statement
The scatter diagram shows positive correlation between the scores on Test A and the scores on Test B.	√
The lowest score on Test A is lower than the lowest score for Test B.	The lowest score on Test B was lower than the lowest Score on Test A.
The range of scores on Test B is 25.	√
The student with the highest score on Test A also has the highest score on Test B.	The student with the highest score on Test A did not get the highest score on Test B
The biggest difference between a student's scores on the two tests is 5.	The biggest difference between a students score on the two tests is 7

8

Scatter Diagram

This problem gives you the chance to:
• discuss and understand a scatter plot of real data

A group of 66 students took two tests; Test A and Test B.
In the scatter diagram, each square represents one student and shows the scores that student got in the two tests.

Scores in Test A and Test B
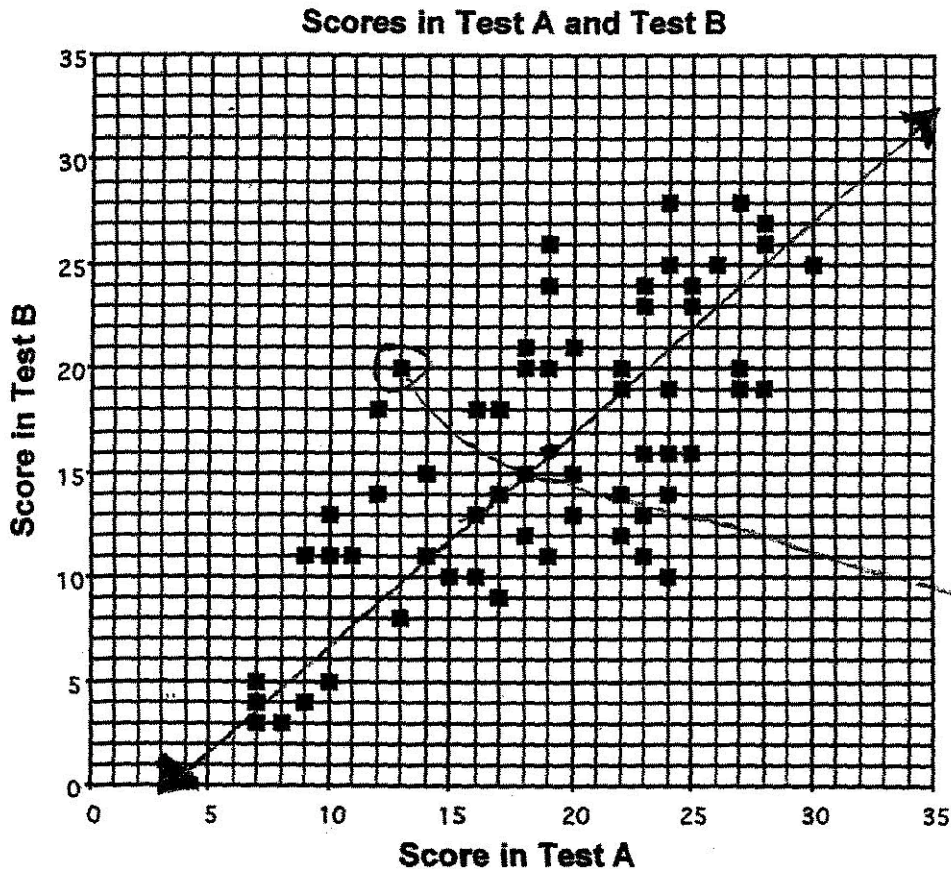
1. The mean score for Test A was 19 and the mean score for Test B was 16.

   Plot a point to show this on the scatter diagram.

2. Draw a line of best fit on the scatter diagram.

   How can a line of best fit be used?

   To make estimations of a test score when you do not have both scores

3. Here are five statements about the scores shown on the scatter diagram.

   If a statement is true check (√) it.

   If it is not true, write a correct statement.

| Statement	Check (√) or write correct statement
The scatter diagram shows positive correlation between the scores on Test A and the scores on Test B.	√
The lowest score on Test A is lower than *the lowest score for Test B.*	Test B's lowest score is 4 points lower than Test A's lowest.
The range of scores on Test B is 25.	√
The student with the highest score on Test A also has the highest score on Test B.	The student with the highest score on Test A does not have the highest score on B by 3.
The biggest difference between a student's scores on the two tests is 5.	No, one student, for instance has a difference of 17.

Scatter Diagram   Test 9

Scatter Diagram

This problem gives you the chance to:
• discuss and understand a scatter plot of real data

S2

A group of 66 students took two tests; Test A and Test B.
In the scatter diagram, each square represents one student and shows the scores that student got in the two tests.

Scores in Test A and Test B
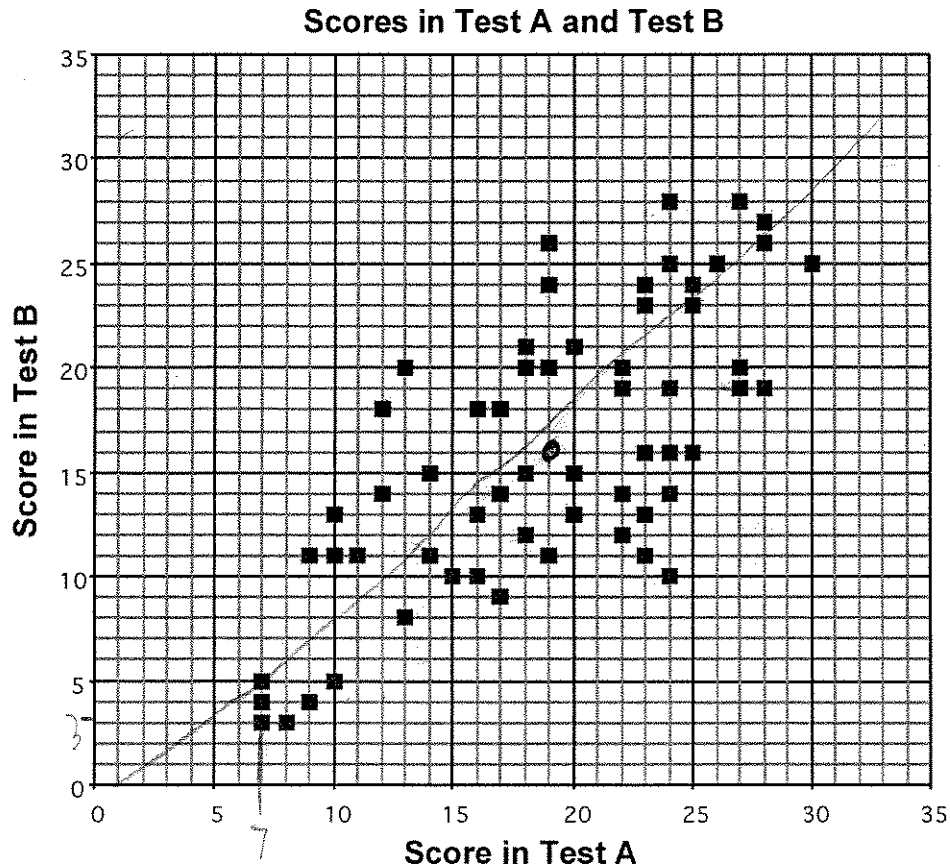
1. The mean score for Test A was 19 and the mean score for Test B was 16.

   Plot a point to show this on the scatter diagram.

2. Draw a line of best fit on the scatter diagram.

   How can a line of best fit be used?

   it can be used to find average
   scores.

Scatter Diagram   Test 9

3. Here are five statements about the scores shown on the scatter diagram.

If a statement is true check (√) it.

If it is not true, write a correct statement.

S2

| Statement	Check (√) or write correct statement
The scatter diagram shows positive correlation between the scores on Test A and the scores on Test B.	√
The lowest score on Test A is lower than the lowest score for Test B.	The lowest Score on Test A is higher than the lowest score on test B.
The range of scores on Test B is 25.	√
The student with the highest score on Test A also has the highest score on Test B.	The student with the highest score on test A needed 5 pts more to be the highest on test B.
The biggest difference between a student's scores on the two tests is 5.	The biggest difference between a students scores is 14.

8

Scatter Diagram

This problem gives you the chance to:
• discuss and understand a scatter plot of real data

S3

A group of 66 students took two tests; Test A and Test B.
In the scatter diagram, each square represents one student and shows the scores that student got in the two tests.

Scores in Test A and Test B

(y-axis) Score in Test B
(x-axis) Score in Test A
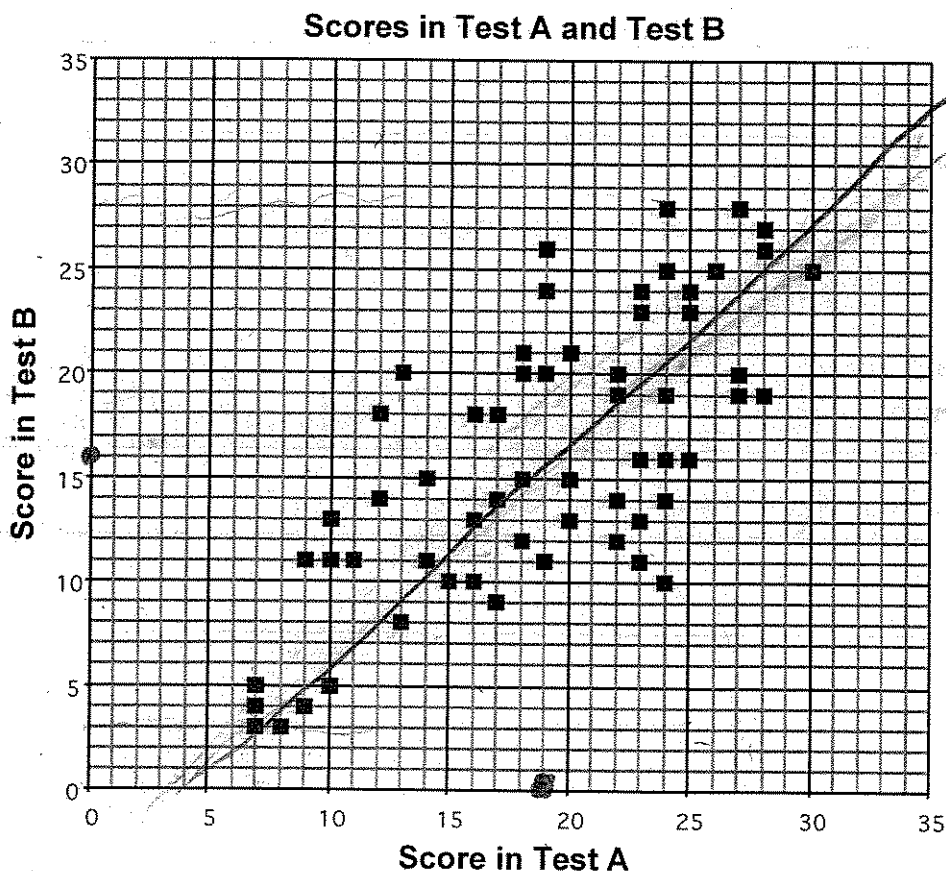
1. The mean score for Test A was 19 and the mean score for Test B was 16.

    Plot a point to show this on the scatter diagram.

2. Draw a line of best fit on the scatter diagram.

    How can a line of best fit be used?
    to show relationships and the average amount of the data

Scatter Diagram   Test 9

3. Here are five statements about the scores shown on the scatter diagram.

   If a statement is true check (√) it.

   If it is not true, write a correct statement.

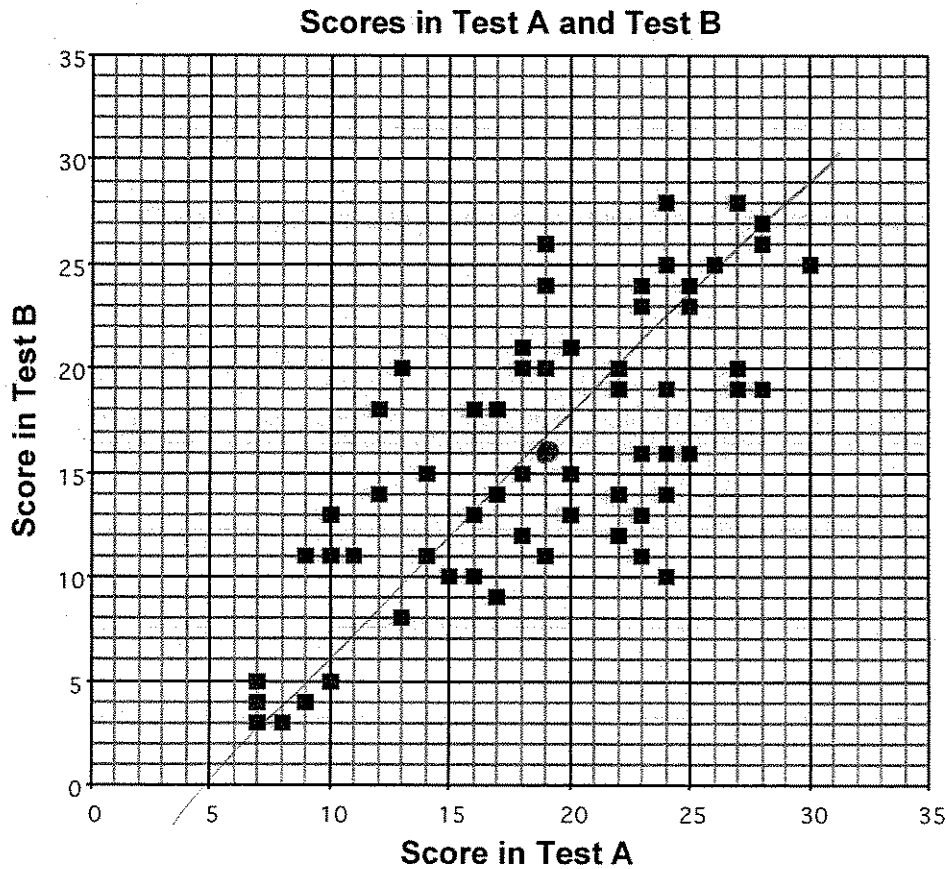| Statement	Check (√) or write correct statement
The scatter diagram shows positive correlation between the scores on Test A and the scores on Test B.	√
The lowest score on Test A is lower than the lowest score for Test B.	The lowest score on Test B is lower than the lowest score on test A
The range of scores on Test B is 25.	√
The student with the highest score on Test A also has the highest score on Test B.	The student with the highest score on Test A did not have the highest score on Test B
The biggest difference between a student's scores on the two tests is 5.	The biggest difference between a student's score in the 2 tests are 14

Scatter Diagram

This problem gives you the chance to:
• discuss and understand a scatter plot of real data

S4

A group of 66 students took two tests; Test A and Test B.
In the scatter diagram, each square represents one student and shows the scores that student got in the two tests.

Scores in Test A and Test B

1. The mean score for Test A was 19 and the mean score for Test B was 16.

   Plot a point to show this on the scatter diagram.

2. Draw a line of best fit on the scatter diagram.

   How can a line of best fit be used?

   It show the various scores that the students got on the tests

Scatter Diagram   Test 9

3. Here are five statements about the scores shown on the scatter diagram.

If a statement is true check (√) it.

If it is not true, write a correct statement.

S4

| Statement	Check (√) or write correct statement
The scatter diagram shows positive correlation between the scores on Test A and the scores on Test B.	✓
The lowest score on Test A is lower than the lowest score for Test B.	The lowest score for test B is higher than the lowest score for test B.
The range of scores on Test B is 25.	✓
The student with the highest score on Test A also has the highest score on Test B.	The student with the highest score on test A didn't have the highest score for test B.
The biggest difference between a student's scores on the two tests is 5.	The biggest difference between a students scores is larger than 5.

8

Scatter Diagram

This problem gives you the chance to:
• discuss and understand a scatter plot of real data

S5

A group of 66 students took two tests; Test A and Test B.
In the scatter diagram, each square represents one student and shows the scores that student got in the two tests.

Scores in Test A and Test B
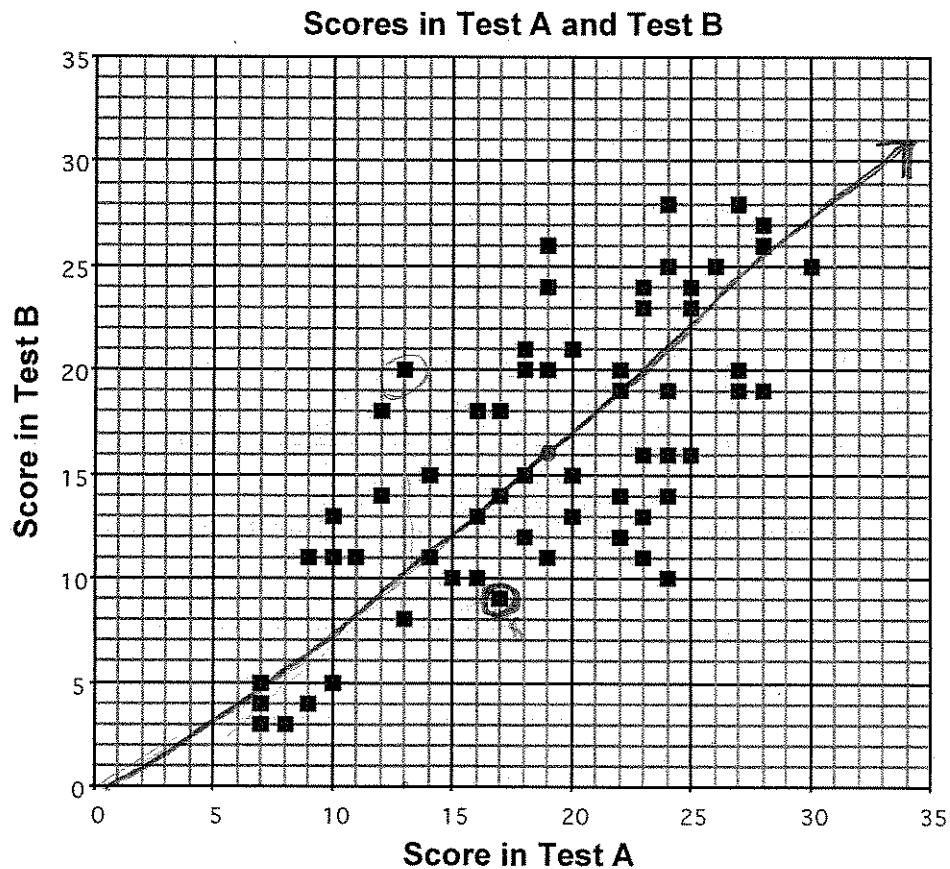
1. The mean score for Test A was 19 and the mean score for Test B was 16.

   Plot a point to show this on the scatter diagram.

2. Draw a line of best fit on the scatter diagram.

   How can a line of best fit be used?

   To see how close a person was to the average

Scatter Diagram   Test 9

3. Here are five statements about the scores shown on the scatter diagram.

   If a statement is true check (√) it.

   If it is not true, write a correct statement.

S5

| Statement	Check (√) or write correct statement
The scatter diagram shows positive correlation between the scores on Test A and the scores on Test B.	√
The lowest score on Test A is lower than the lowest score for Test B.	√
The range of scores on Test B is 25.	The range of scores on Test B is 23.
The student with the highest score on Test A also has the highest score on Test B.	The student with the highest score on Test A, doesn't have the highest on Test B.
The biggest difference between a student's scores on the two tests is 5.	The biggest difference between a student's scores on the two tests is 8.

2-9=8 > 5
10-13=7 > 5

8

Scatter Diagram

This problem gives you the chance to:
• discuss and understand a scatter plot of real data

S6

A group of 66 students took two tests; Test A and Test B.
In the scatter diagram, each square represents one student and shows the scores that student got in the two tests.

Scores in Test A and Test B
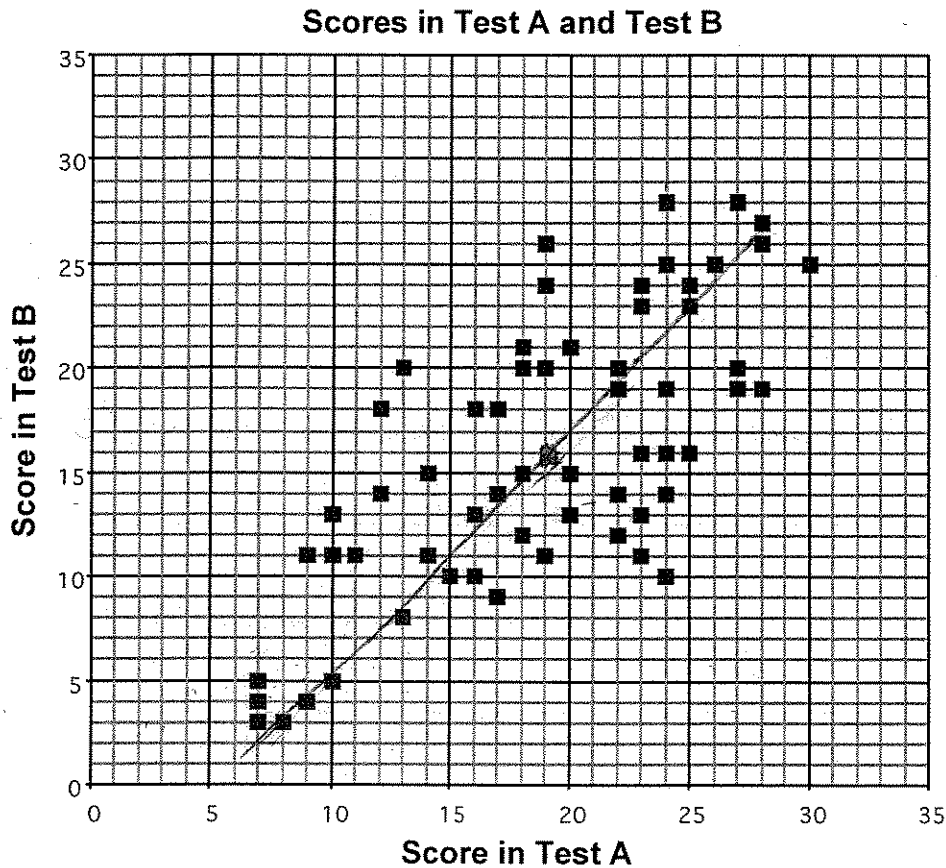
1. The mean score for Test A was 19 and the mean score for Test B was 16.

   Plot a point to show this on the scatter diagram.

2. Draw a line of best fit on the scatter diagram.

   How can a line of best fit be used?

   A line of best fit can be used to show about
   where the average scores for the test were.

Scatter Diagram   Test 9

3. Here are five statements about the scores shown on the scatter diagram.

    If a statement is true check (√) it.

    If it is not true, write a correct statement.

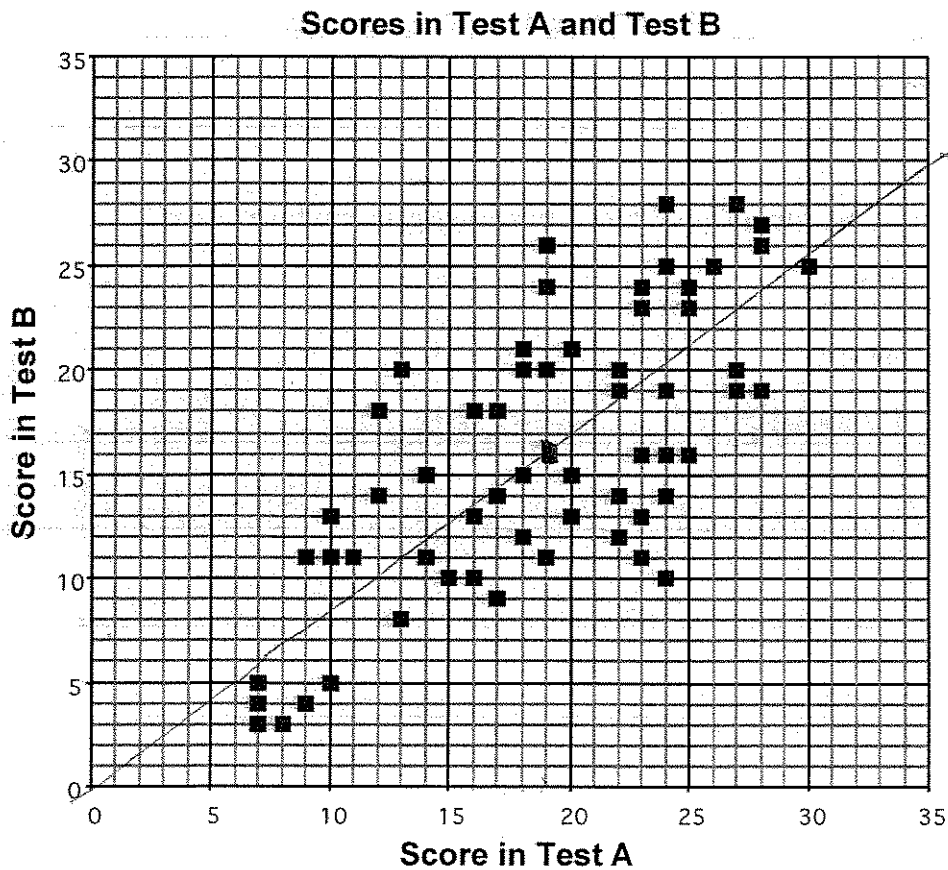| Statement	Check (√) or write correct statement
The scatter diagram shows positive correlation between the scores on Test A and the scores on Test B.	√
The lowest score on Test A is lower than the lowest score for Test B.	The lowest score on Test B is lower than the lowest score for Test A.
The range of scores on Test B is 25.	√
The student with the highest score on Test A also has the highest score on Test B.	The student with the highest score on Test A did not have the highest score on Test B.
The biggest difference between a student's scores on the two tests is 5.	The smallest difference between a students scores on the two tests is 0

8

Scatter Diagram

This problem gives you the chance to:
• discuss and understand a scatter plot of real data

S7

A group of 66 students took two tests; Test A and Test B.
In the scatter diagram, each square represents one student and shows the scores that student got in the two tests.

Scores in Test A and Test B

1. The mean score for Test A was 19 and the mean score for Test B was 16.

   Plot a point to show this on the scatter diagram.

2. Draw a line of best fit on the scatter diagram.

   How can a line of best fit be used?

   It can be used to show the averages of both tests, + how many made above or below average.

3. Here are five statements about the scores shown on the scatter diagram.

If a statement is true check (√) it.

If it is not true, write a correct statement.

S7

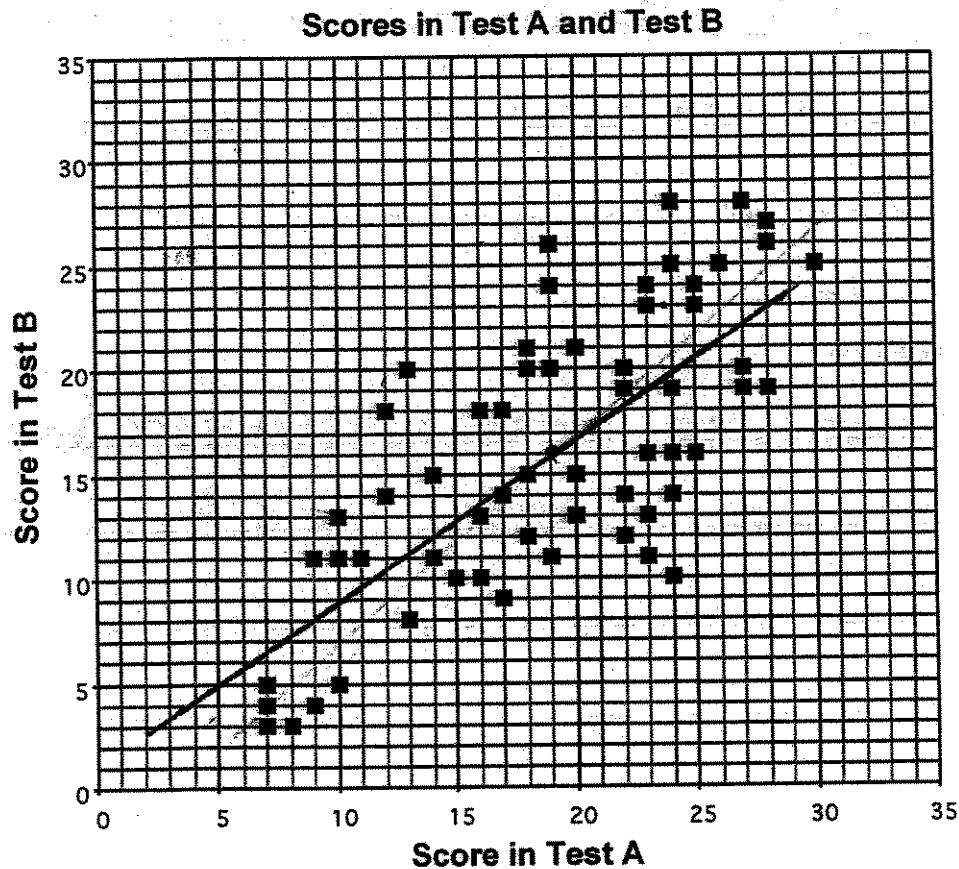| Statement	Check (√) or write correct statement
The scatter diagram shows positive correlation between the scores on Test A and the scores on Test B.	The scatter diagram shows no correlation between scores on Test A & scores on Test B.
The lowest score on Test A is lower than the lowest score for Test B.	The lowest score on Test A is the same as the lowest score for Test B.
The range of scores on Test B is 25.	√
The student with the highest score on Test A also has the highest score on Test B.	The student with the highest score on Test A didn't have the highest score on Test B.
The biggest difference between a student's scores on the two tests is 5.	The biggest difference between a student's scores on the two tests is 6.

8

Scatter Diagram

This problem gives you the chance to:
- discuss and understand a scatter plot of real data

A group of 66 students took two tests; Test A and Test B.
In the scatter diagram, each square represents one student and shows the scores that student got in the two tests.

Scores in Test A and Test B

1. The mean score for Test A was 19 and the mean score for Test B was 16.

   Plot a point to show this on the scatter diagram.

2. Draw a line of best fit on the scatter diagram.

   How can a line of best fit be used?

   This line used So that anyone with a low test
   on test a can have an approximate estimation of test B

Scatter Diagram   Test 9

3. Here are five statements about the scores shown on the scatter diagram.

If a statement is true check (√) it.

If it is not true, write a correct statement.

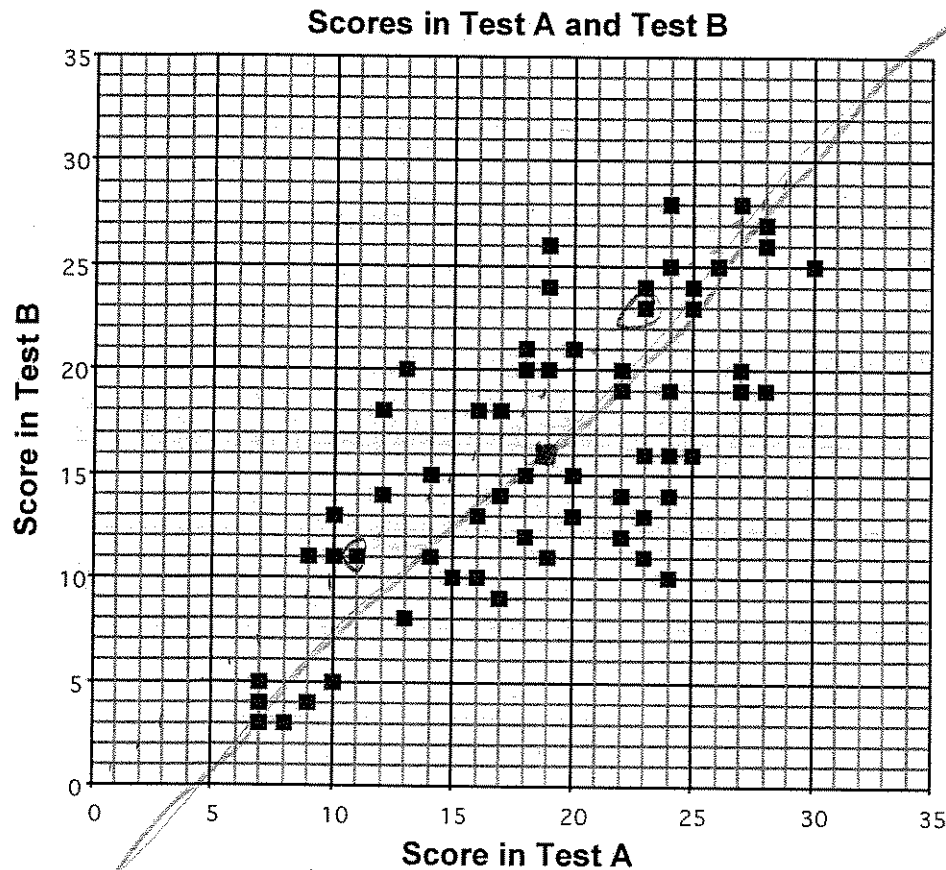| Statement	Check (√) or write correct statement
The scatter diagram shows positive correlation between the scores on Test A and the scores on Test B.	√
The lowest score on Test A is lower than the lowest score for Test B.	The lowest score on Test B is lower than the lowest score on Test A
The range of scores on Test B is 25.	√
The student with the highest score on Test A also has the highest score on Test B.	The student with the highest score on Test A obsn't have the highest score on Test B
The biggest difference between a student's scores on the two tests is 5.	The biggest difference between a students scores on the two tests is 14.

Scatter Diagram

This problem gives you the chance to:
• discuss and understand a scatter plot of real data

S9

A group of 66 students took two tests; Test A and Test B.
In the scatter diagram, each square represents one student and shows the scores that student got in the two tests.

Scores in Test A and Test B

1. The mean score for Test A was 19 and the mean score for Test B was 16.

   Plot a point to show this on the scatter diagram.

2. Draw a line of best fit on the scatter diagram.

   How can a line of best fit be used?

   It can be used to tell where a test most reflected upon the average

Scatter Diagram   Test 9

3. Here are five statements about the scores shown on the scatter diagram.

   If a statement is true check (√) it.

   If it is not true, write a correct statement.

| Statement	Check (√) or write correct statement
The scatter diagram shows positive correlation between the scores on Test A and the scores on Test B.	✓
The lowest score on Test A is lower than the lowest score for Test B.	The lowest score on Test B is lower than the lowest score for test A
The range of scores on Test B is 25.	✓
The student with the highest score on Test A also has the highest score on Test B.	The student who shared the lowest score on test A also shared the lowest score on
The biggest difference between a student's scores on the two tests is 5.	The smallest difference between a students scores on the test is 0

Scatter Diagram   Test 9

8

Scatter Diagram

This problem gives you the chance to:
• discuss and understand a scatter plot of real data

S10

A group of 66 students took two tests; Test A and Test B.
In the scatter diagram, each square represents one student and shows the scores that student got in the two tests.

Scores in Test A and Test B
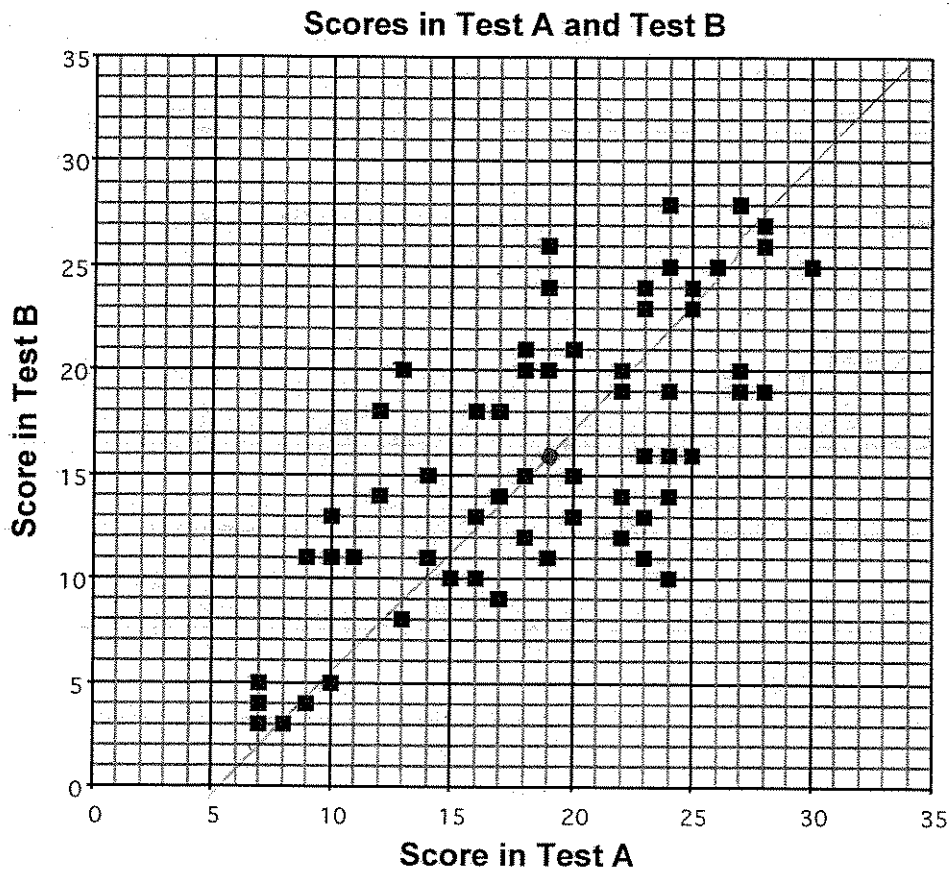
1. The mean score for Test A was 19 and the mean score for Test B was 16.
   Plot a point to show this on the scatter diagram.

2. Draw a line of best fit on the scatter diagram.
   How can a line of best fit be used?
   To figure out the *approximate* average score on each test for
   the lowest scoring students, the highest scoring students,
   and all between.

Scatter Diagram   Test 9

3. Here are five statements about the scores shown on the scatter diagram.

If a statement is true check (√) it.

If it is not true, write a correct statement.

S10

Statement	Check (√) or write correct statement
The scatter diagram shows positive correlation between the scores on Test A and the scores on Test B.	✓
The lowest score on Test A is lower than the lowest score for Test B.	The lowest score on test B is lower than the lowest score on test A
The range of scores on Test B is 25.	✓
The student with the highest score on Test A also has the highest score on Test B.	The student with the highest score on Test A did not recive the highest score on test B.
The biggest difference between a student's scores on the two tests is 5.	The biggest difference between a students scores on the two tests is 14

8