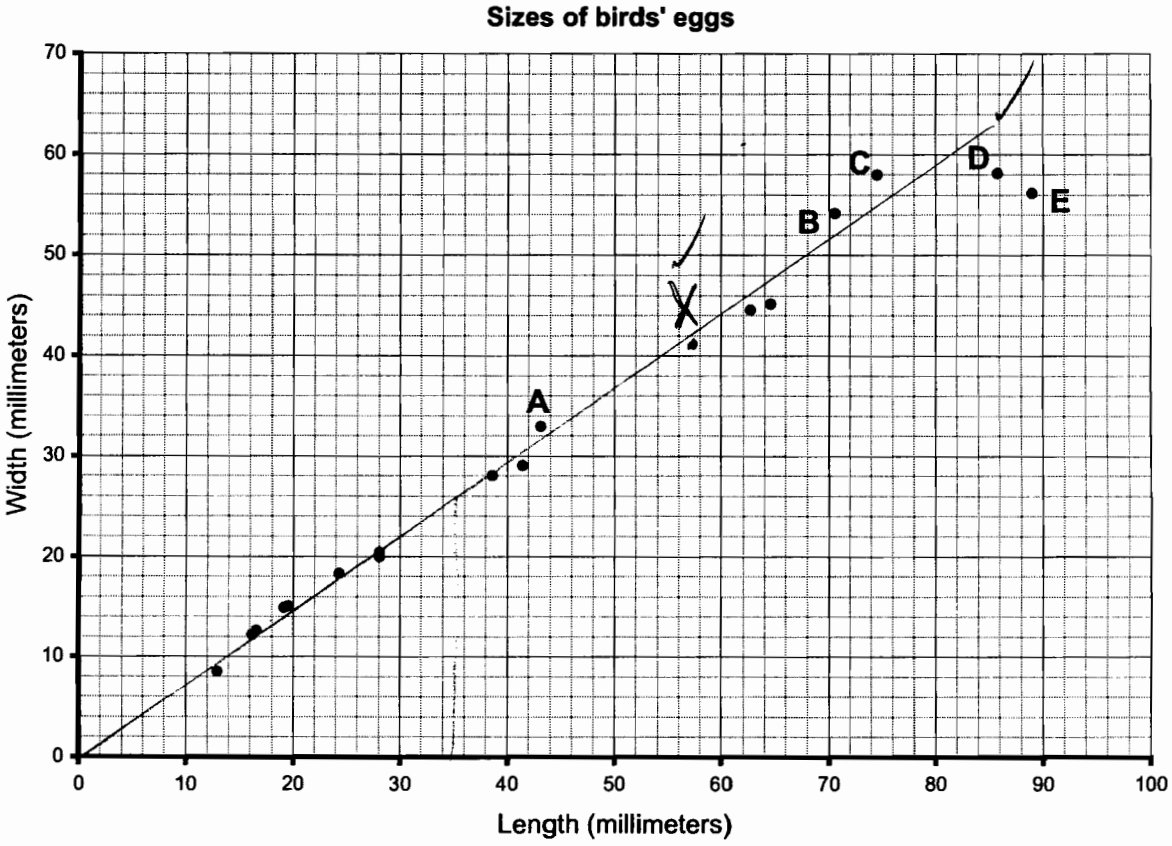
Birds' Eggs

This problem gives you the chance to:
interpret a scatter diagram including comparing slopes

A1

This scatter diagram shows the lengths and the widths of the eggs of some American birds.



1. Mallards' eggs have an average length of 57.8 millimeters and average width 41.6 millimeters. ✓ 1

   Use an **X** to mark a point that represents this on the scatter diagram.

2. What does the graph show about the connection between the lengths of birds' eggs and their widths?

   The bigger the length the bigger the width ✓ 1

3. Draw a line that best fits the data. 1

A2

4. Find the equation of the line that best fits the data.
Show your work.

slope $\frac{7}{10}$ ✓ so $y-0=\frac{7}{10}(x-0)$ ✓ 1 2

5. If you found an egg with a length of 35 millimeters, what do you think its width would be?

26 ✓ millimetres 1

Explain your answer.

Went to line of best fit ✓ 1

6. Describe the differences in shape of the two eggs C and D.

Both the same width but D is longer ✓ 2

7. Which of the eggs A, B, C, D, and E has the greatest ratio of length to width?
Explain how you decided.

✓ E is as long way below line compared to rest ✓ 1 1

Birds' Eggs

B1

This problem gives you the chance to:
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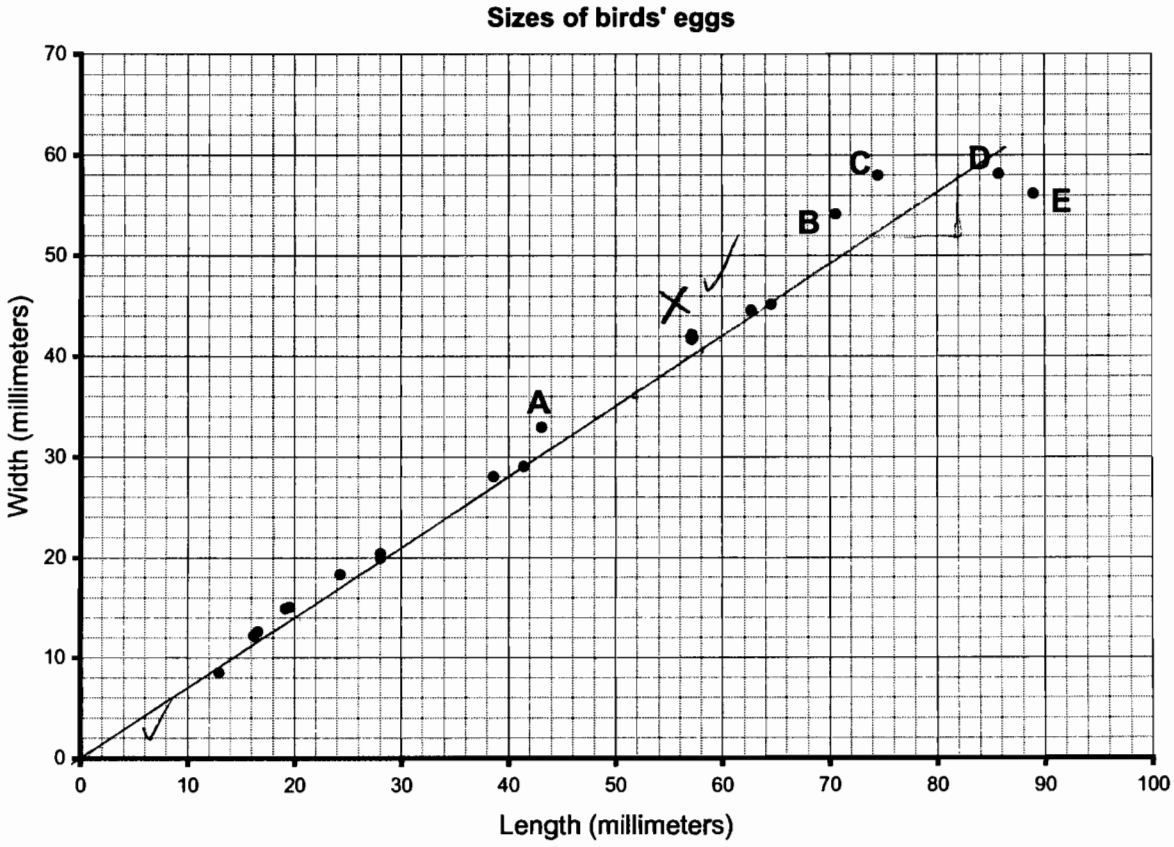
This scatter diagram shows the lengths and the widths of the eggs of some American birds.



1. Mallards' eggs have an average length of 57.8 millimeters and average width 41.6 millimeters.

   Use an **X** to mark a point that represents this on the scatter diagram.

2. What does the graph show about the connection between the lengths of birds' eggs and their widths?

   The bigger they are the faster they are

3. Draw a line that best fits the data.

B2

4. Find the equation of the line that best fits the data.
Show your work.

slope $\frac{3}{4}$ ✓ $y = \frac{3}{4}x$ ✓ 1 (1)

5. If you found an egg with a length of 35 millimeters, what do you think its width would be?

25 ✓ millimetres 1

Explain your answer.

went to line and looked across ✓ 1

6. Describe the differences in shape of the two eggs C and D.

C is as wide as D ✓ but is ✓ smaller in length 2

7. Which of the eggs A, B, C, D, and E has the greatest ratio of length to width?
Explain how you decided.

E ✓ at furthest away from line ✓ 1 1

Birds' Eggs

C1

This problem gives you the chance to:
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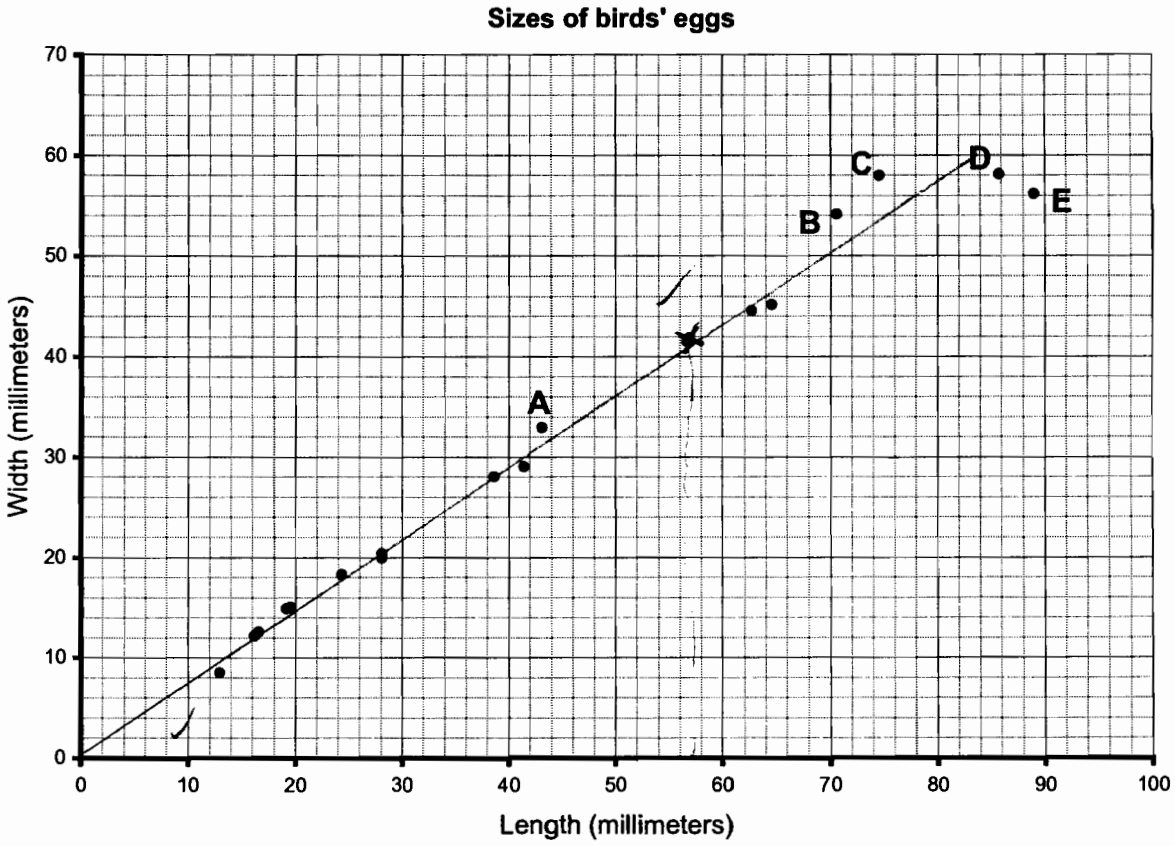
This scatter diagram shows the lengths and the widths of the eggs of some American birds.



1. Mallards' eggs have an average length of 57.8 millimeters and average width 41.6 millimeters.

   Use an **X** to mark a point that represents this on the scatter diagram.

2. What does the graph show about the connection between the lengths of birds' eggs and their widths?

   The fatter they are the longer they are

3. Draw a line that best fits the data.

C2

4. Find the equation of the line that best fits the data.
Show your work.

$\frac{8}{10}$ ✓

0
(1)

5. If you found an egg with a length of 35 millimeters, what do you think its width would be?

25 ✓ millimetres

1

Explain your answer.

It fits with the line.

1

6. Describe the differences in shape of the two eggs C and D.

Egg C is smaller in length than D but they are the same width.

2

7. Which of the eggs A, B, C, D, and E has the greatest ratio of length to width?
Explain how you decided.

E because it is the longest and ✓ below the line

1

1

10

12

Birds' Eggs

D1

This problem gives you the chance to:
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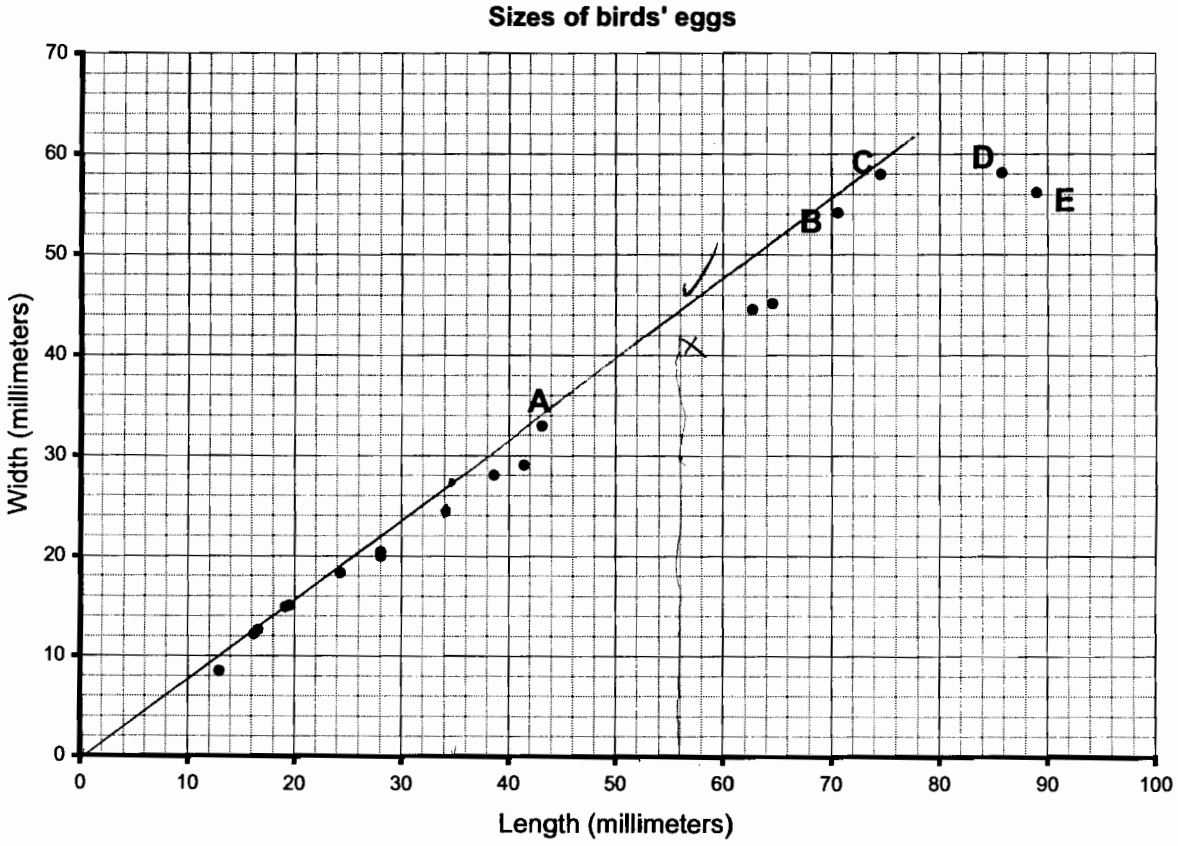

1. Mallards' eggs have an average length of 57.8 millimeters and average width 41.6 millimeters.

   Use an **X** to mark a point that represents this on the scatter diagram.

2. What does the graph show about the connection between the lengths of birds' eggs and their widths?

   The longer the egg the wider it is.

3. Draw a line that best fits the data.

D2

4. Find the equation of the line that best fits the data.
Show your work.

0

5. If you found an egg with a length of 35 millimeters, what do you think its width would be?

27 ✓ millimetres 1

Explain your answer.

I just went up on the graph and laid a dot in line with the others. 1 ✓

6. Describe the differences in shape of the two eggs C and D.

D is longer than C but they are the same width ✓ 2

7. Which of the eggs A, B, C, D, and E has the greatest ratio of length to width?
Explain how you decided.

E ✓ Because its the longest 1
D is wider but E wich 1
is the longest is further from the line

Birds' Eggs

E1

This problem gives you the chance to:
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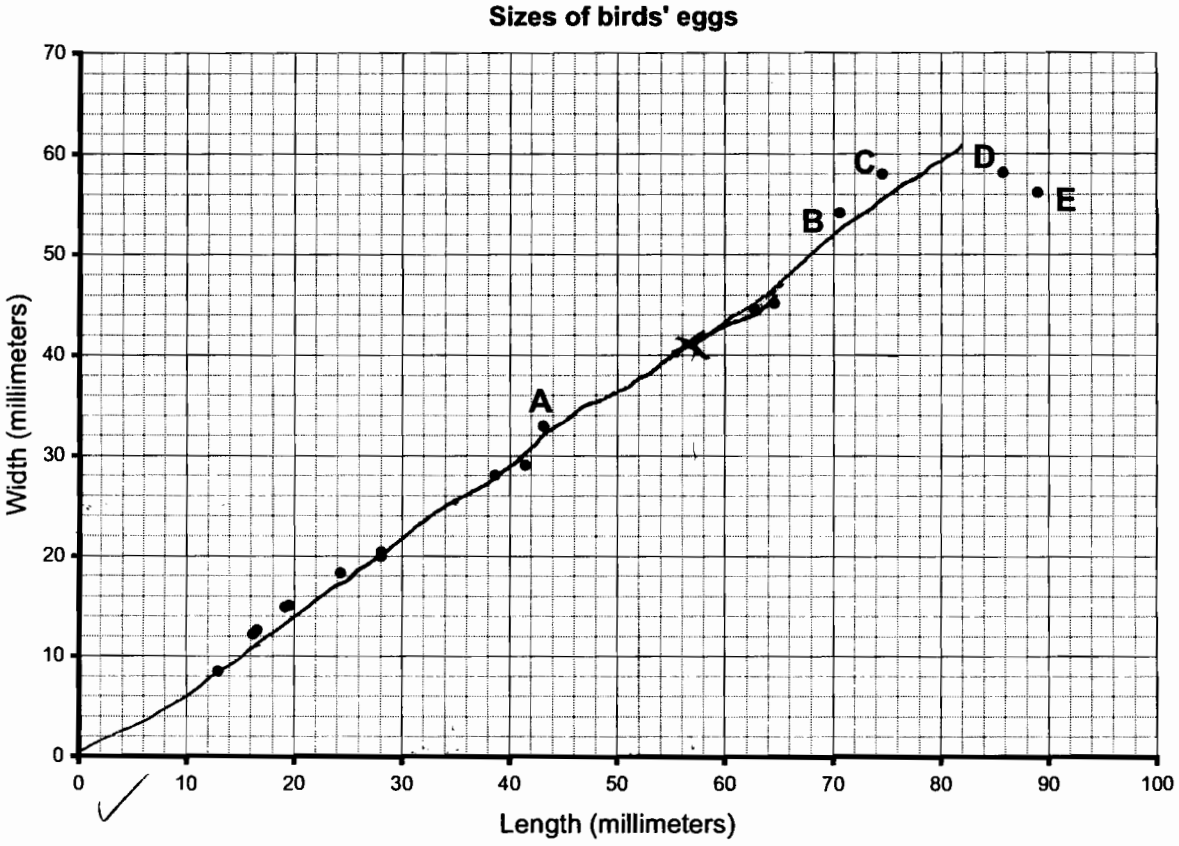

1. Mallards' eggs have an average length of 57.8 millimeters and average width 41.6 millimeters.

   Use an **X** to mark a point that represents this on the scatter diagram.

2. What does the graph show about the connection between the lengths of birds' eggs and their widths?

   It shows they increase in the length and width at the same time

3. Draw a line that best fits the data.

E2

4. Find the equation of the line that best fits the data.
Show your work.

0

5. If you found an egg with a length of 35 millimeters, what do you think its width would be?

25 ✓ millimetres 1

Explain your answer.

I looked on the line I drew, went up 35 to the line and went over to 25. 1

6. Describe the differences in shape of the two eggs C and D.

D length is bigger than C's length, there widths are the same. ✓ 2

7. Which of the eggs A, B, C, D, and E has the greatest ratio of length to width?
Explain how you decided.

I think E has the biggest ratio because the legth is the biggest and it is pretty close to the highest width. 1 1

(9)