Birds' Eggs

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

Sizes of birds' eggs

1. A biologist measured a sample of one hundred Mallard duck eggs and found they had an average length of 57.8 millimeters and average width 41.6 millimeters.

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

CCR 5

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

As the length increases, the width generally increases.

3. Another sample of similar birds has eggs with a length of 35 millimeters on average. If these birds follow the trend in the scatterplot, about what width would you expect these eggs to be, on average?

about 24 millimeters

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

D would be longer than C by about 12 millimeters, they would be the same width

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

E   I divided the x coordinate by the y coordinate and found the largest quotient was produced by egg E

_A   43 to 33   1.3_
_B   71 to 55   1.29_
_C   74 to 58   1.27_
_D   86 to 58   1.48_
_E   89 to 56   1.58_

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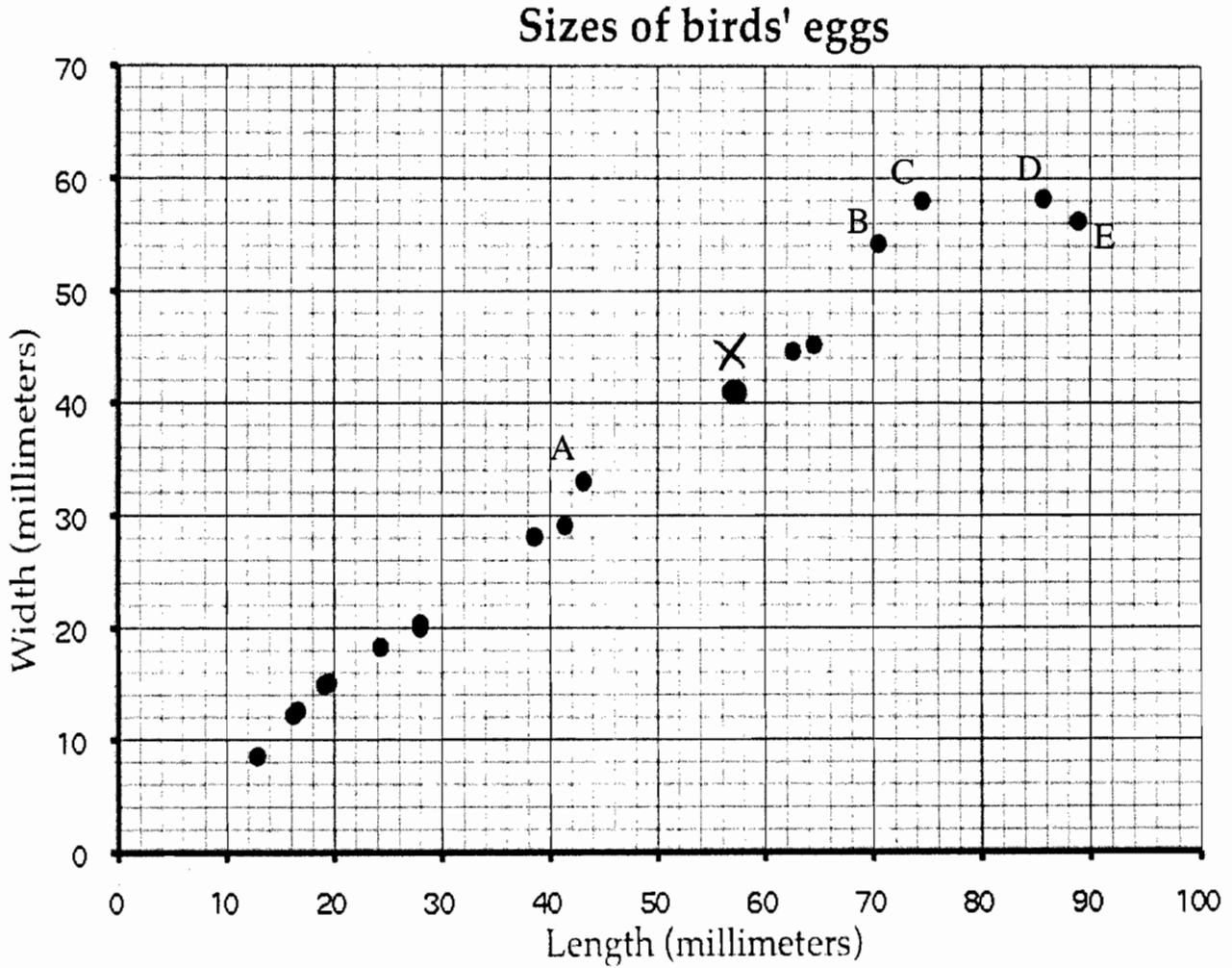
Sizes of birds' eggs

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

CCR 5

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

The ~~length~~ width is about 2/3 the length.

3. Another sample of similar birds has eggs with a length of 35 millimeters on average. If these birds follow the trend in the scatterplot, about what width would you expect these eggs to be, on average?

about 23 millimeters

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

They have the same width but different lengths, so the shaped D is longer than C.

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

E, because A,B,C, all have about 2/3 ratio. D has ... D increases in length only. E increases in length and decreases in width

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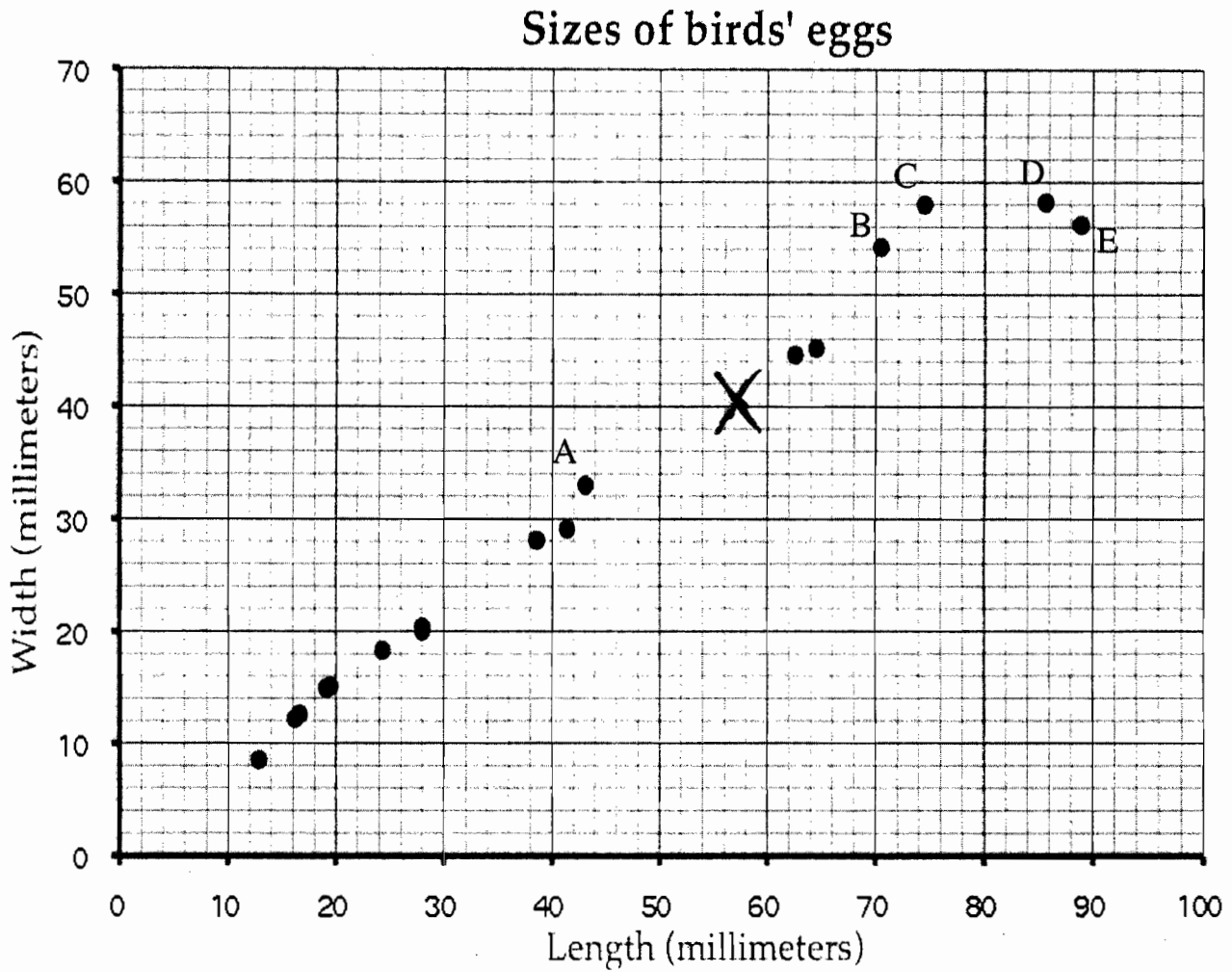
Sizes of birds' eggs

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CCR 5

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

The length generally increases along with the width.

3. Another sample of similar birds has eggs with a length of 35 millimeters on average. If these birds follow the trend in the scatterplot, about what width would you expect these eggs to be, on average?

Around 23-26

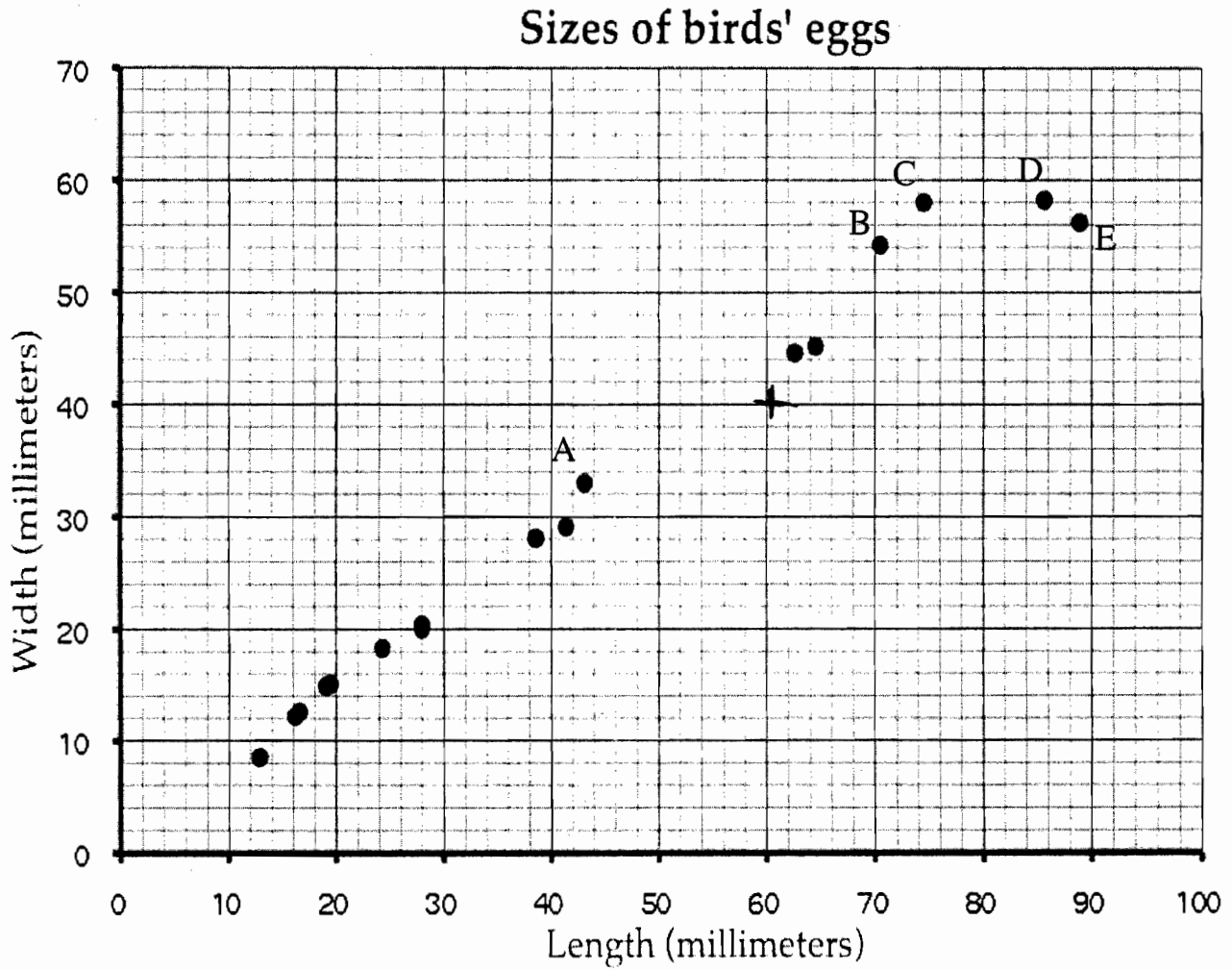4. Describe the differences in shape of the two eggs C and D.

The length of C, D are the same, but because that the widths, differ by 10, D is in a more oblong / oval shape than C.

/

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

The egg E has the greatest length to width ratio according to data below. I found the approx. and simplified the ratios, and found E with the highest ratio.

A 43:33   1. 30̄
B 71:54   1.315
C 74:58   1.27
D 86:58   1.48
E 89:54   1.58

CCR 5

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Sizes of birds' eggs

1. A biologist measured a sample of one hundred Mallard duck eggs and found they had an average length of 57.8 millimeters and average width 41.6 millimeters.

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

CCR 5

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

As their length increases, the width increases too. However when the egg has reached at least 72 millimeters for length, the width will stay the same as the length of the egg keeps growing.

3. Another sample of similar birds has eggs with a length of 35 millimeters on average. If these birds follow the trend in the scatterplot, about what width would you expect these eggs to be, on average?

25.8 millimeters or ≈ 26 millimeters

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

Even though the widths of the two eggs are the same, their lengths are not. Egg D's length is 12 millimeters larger than egg C.

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

A= 43:33, B= 54:70, C= 74:58 D= 86:58, E= 88:58
Egg E has the greatest ratio of length to width. I decided to use division and when I divided to get the ratio of the eggs Egg E had the greatest ratio.

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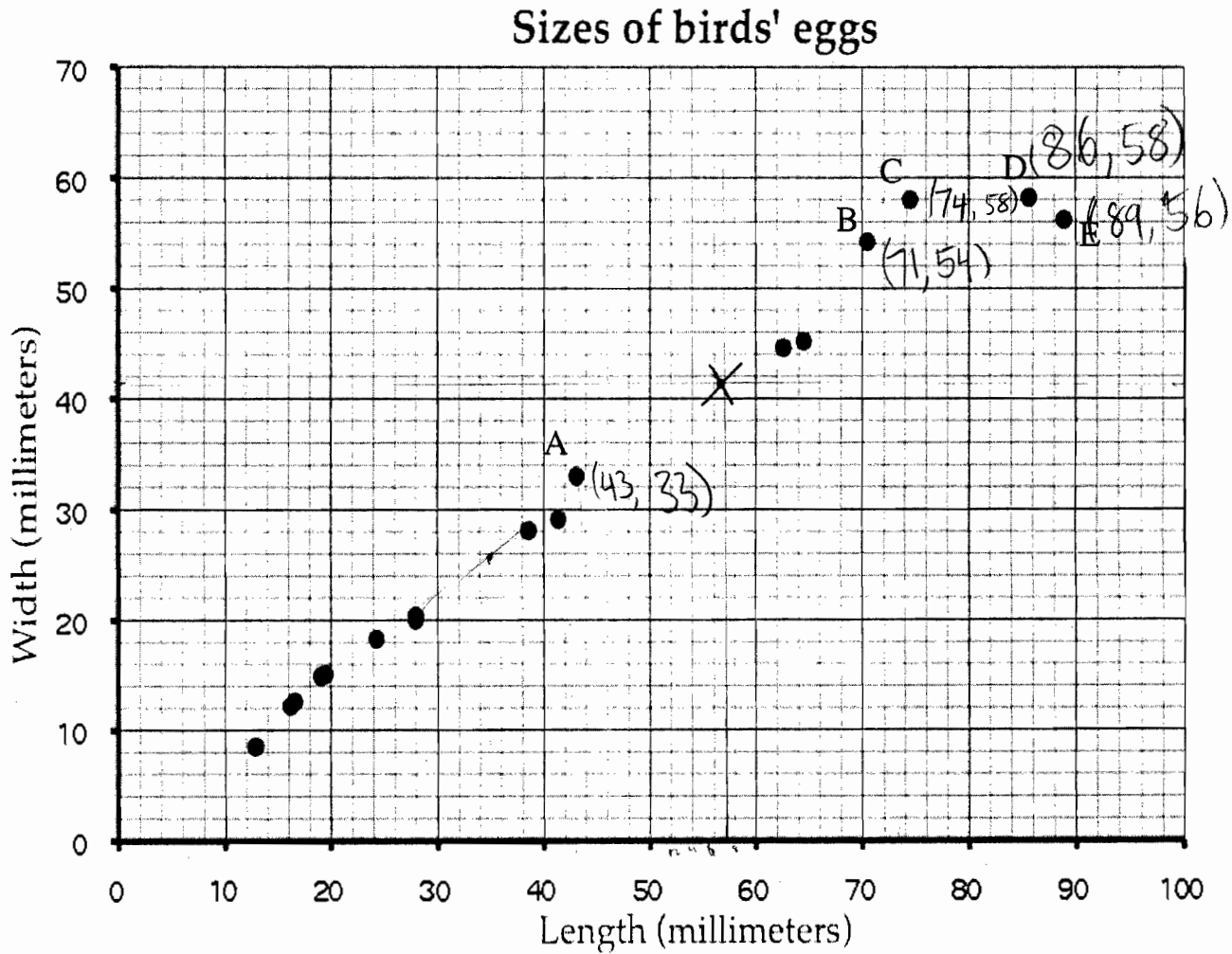
Sizes of birds' eggs

1. A biologist measured a sample of one hundred Mallard duck eggs and found they had an average length of 57.8 millimeters and average width 41.6 millimeters.

Use a **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?

When the lengths increase, the widths do too. When the egg reaches atleast 72 millimeters for length the width will stay the same as the length keeps growing.

3. Another sample of similar birds has eggs with a length of 35 millimeters on average. If these birds follow the trend in the scatterplot, about what width would you expect these eggs to be, on average?

about   25.8 millimeters

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

Even though the widths are the same, the lengths are not Egg D is 12 millimeters larger (length) than egg C.

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

A= 43 to 33   B= 54 to 70   C= 74 to 58   D = 86 to 58

E = 88 to 58. Egg E has the greatest ratio because

when I divided the numbers egg E has the most ratio. (length divided by width)

A:
```
      1.3
33 |43.0
   -33 ↓
    100
    -99
```

B:
```
70|54.0
    .77
70|54
```

C:
```
   1.28
58|74
```

```
1.48
```
D: 58|86

```
1.52
```
E 58|88