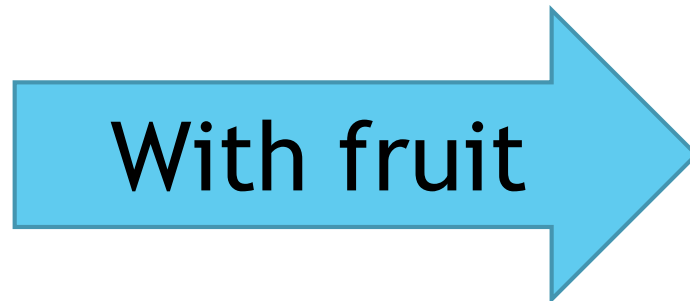


How many kinds of homemade yogurt
can we make?

Do you like yogurt??



They are sold in the store in Japan.



purpose

- ▶ To know whether yogurt's characteristics are changed by its ingredients.
- ▶ To try to make new yogurt which has never been sold .
- ▶ To find out which ingredients beginners can easily make yogurt with.

Ingredients

<Yogurt>

- ▶ Koiwai yogurt
- ▶ Bulgarian yogurt
- ▶ Caspian Sea yogurt



<Dairy products>

- ▶ Yakulto
- ▶ Adjusted milk
- ▶ Koiwai coffee milk
- ▶ Fruit milk
- ▶ High-fat milk
- ▶ Low-fat milk
- ▶ Unadjusted milk
- ▶ Instant coffee and Milk

The first experiment

To know which ingredients besides milk set like yogurt.

To make new yogurt which has never been sold in any store.

① We had 8 cups and 100g the 4 different liquid were poured into 2 cups each.

- Yakult with yogurt.
- Adjusted milk with yogurt.
- Koiwai coffee milk with yogurt.
- Fruit milk with yogurt.

② We observed them about every 4 hours. At the second, the fourth and the sixth observation, we measured pH.

The second experiment

To know whether yogurt's characteristics are changed by its ingredients.

① We had 8 cups and 100g of the 4 different liquids were poured into 2 cups each.

- Low-fat milk with yogurt.
- High-fat milk with yogurt.
- Unadjusted milk with yogurt.
- Instant coffee and milk with yogurt.

② We observed them after about four hours and eight hours. At the second and the third observation, we measured pH.

The third experiment

We searched for yogurt which is easy to make and is delicious.

① We had 12 cups and 100g of the 6 different liquid were poured into cups each.

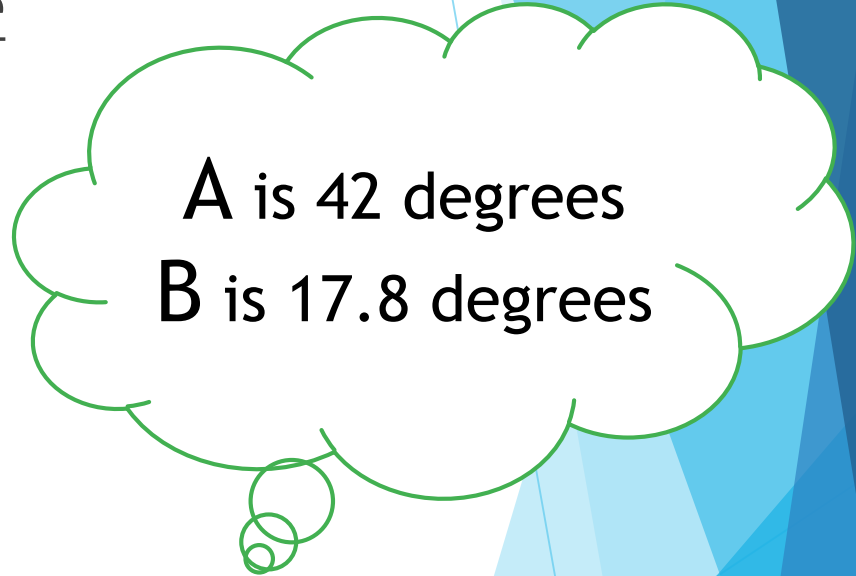
- High-fat milk with Caspian sea yogurt.
- High-fat yogurt with Bulgarian yogurt.
- Low-fat milk with Caspian Sea yogurt.
- Low-fat milk with Bulgarian yogurt.
- Unadjusted milk with Caspian Sea yogurt.
- Unadjusted milk with Bulgarian yogurt.

The third experiment

We searched for yogurt which is easy to make and is delicious.

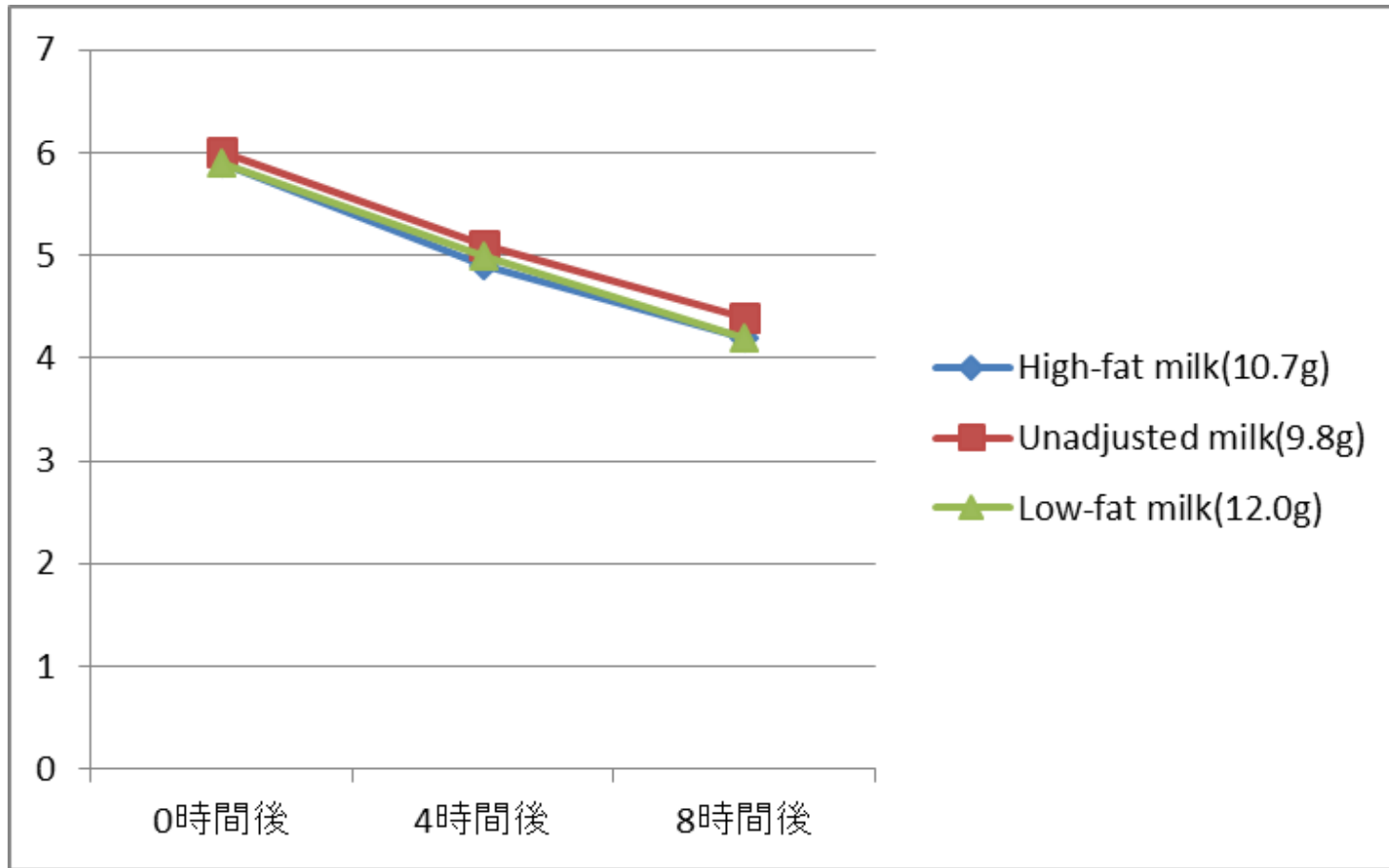
② We set the temperature of the incubator to 42 degrees and put half of the 12 cups into the incubator.(=A) And we left the other half in the room.(=B)

③ We observed them and measured pH about every four hours.

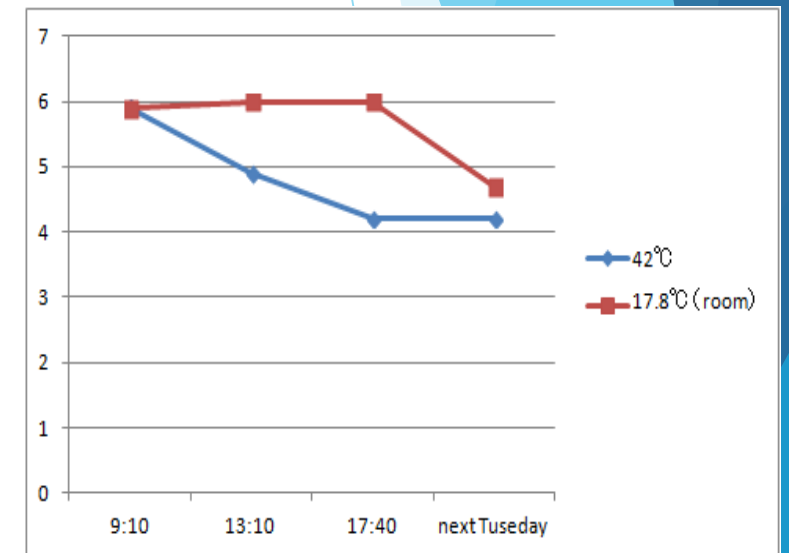


A is 42 degrees
B is 17.8 degrees

Result

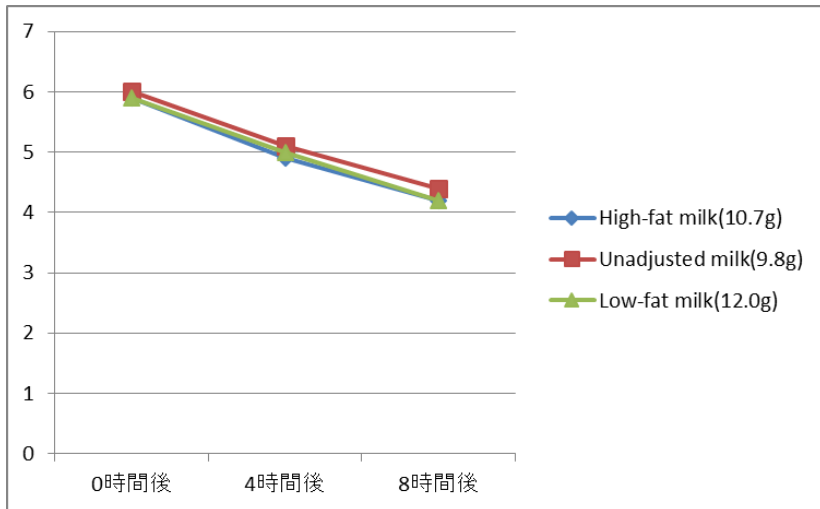


Change of pH by the kinds of dairy products and time

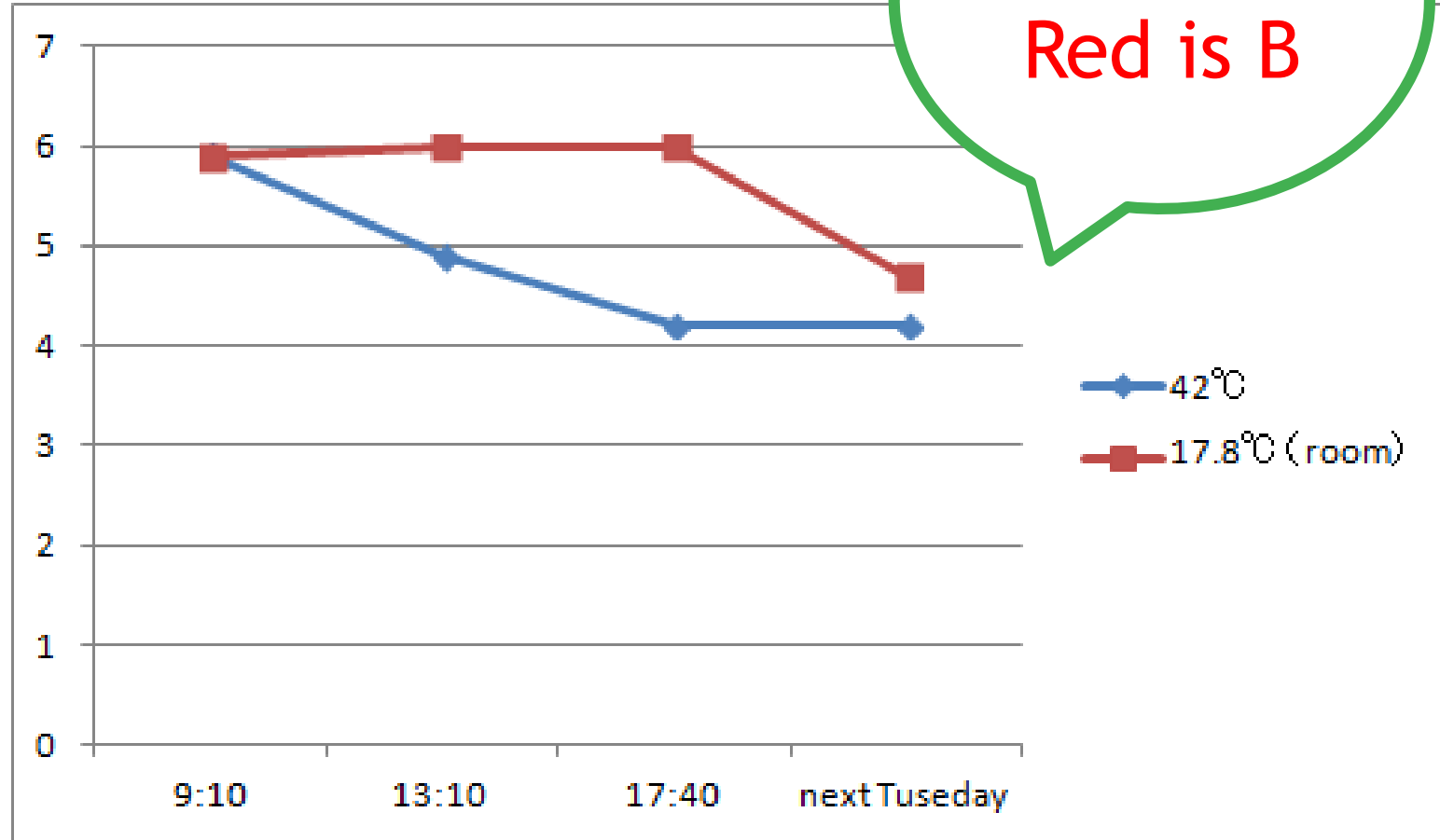


Change of pH by the kinds of dairy products and time

Result



Change of pH by the kinds of dairy products and time

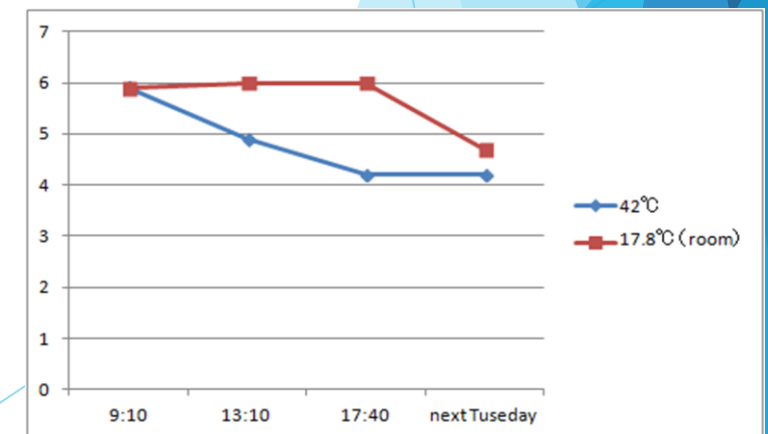


Blue is A
Red is B

Change of pH by the kinds of dairy products and time

Conclusion

- ▶ The liquids except for milk didn't become yogurt though they are dairy products.
- ▶ The more carbohydrate milk contains, the greater yogurt's pH changes.
- ▶ We don't recommend Koiwai yogurt to beginners to make yogurt.
- ▶ The next assignment is why B's pH rise first.



Thank you for listening ! !

