

Project Title

First Name
Last Name

Guiding Question

How does changing the temperature of a tennis ball affect its height off of a Bounce.

Hypothesis

if you add heat to a tennis ball it will bounce higher because the heat will expand the air in the tennis ball and when the air expands the ball gets bouncier because of air pressure.

Material List

**1. I will need a Measuring tape.
I will need a large wall
1. I will need tennis balls
2. I will need a stove
I will need paper.**

Procedure

**1. Use measuring tape to show ever feet and inch
2. Use a large wall to used the measuring tape
3. Use tennis balls for the experiment itself
4. Use a stove to change the temperature.
Use need paper to record everything**

Pictures

Insert 2-3 pictures of your experiment

Graph

This was completed with your math teacher.

Data Table

Bigger Heat = bigger bounce				
Dependent Variable (The height of a Bounce ball in feet and inches)	Independent variable (unit of measurement)			
		Room temp 62 degrees	5 minutes (113 Degrees)	10 minutes (177 Degrees)
Trial 1	39 inches	42 inches	48.5 inches	
Trial 2	39 inches	41.5 inches	49.25inches	
Trial 3	38.5 inches	44 inches	49 inches	
Trial 4	42 inches	44 inches	47 inches	
Trial 5	39 inches	44.5 inches	49.5 inches	
Trail 6	41 inches	44.5 inches	47.75	

Data Analysis

The purpose of this experiment was to identify if the temperature of a tennis ball had an affect on the height a tennis ball would bounce. To test this 4 tennis balls were placed in an oven for 5 minutes. One of the tennis balls was punctured with a thermometer to check the internal temperature. After the temperature was checked, each tennis ball was bounced 1 time and the height of the bounce was recorded. The tennis balls bounced about 3 feet high. It was predicted that if a tennis ball has heat to 177 degrees then the tennis ball will bounce higher because the air pressure expands inside the ball and makes the tennis ball lighter. The hypothesis was proven correct because the tennis ball bounce higher when the temperature was increased. The things that could have impacted this experiment are the floor there could be the time each tennis ball was taking out of the oven.

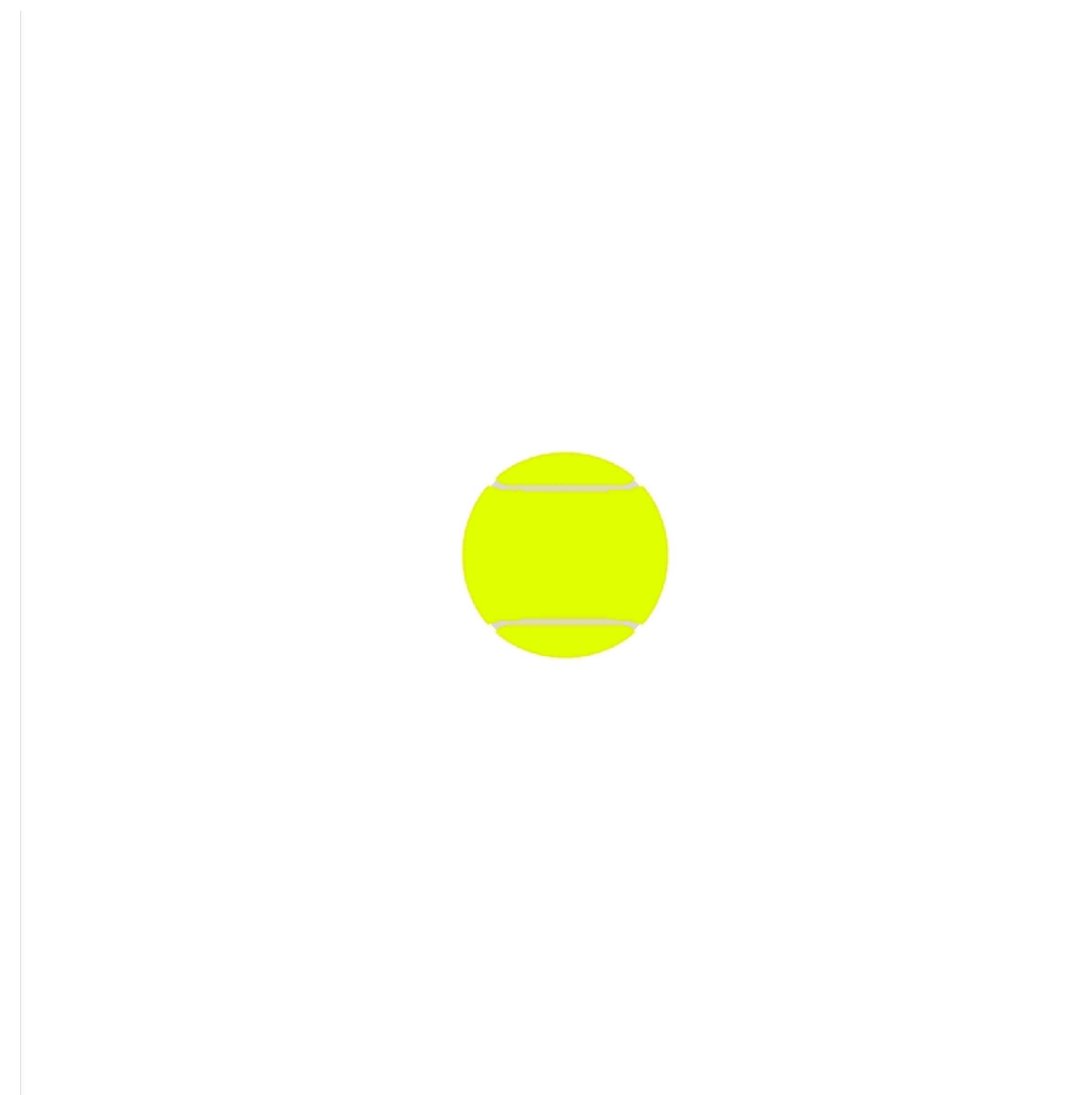
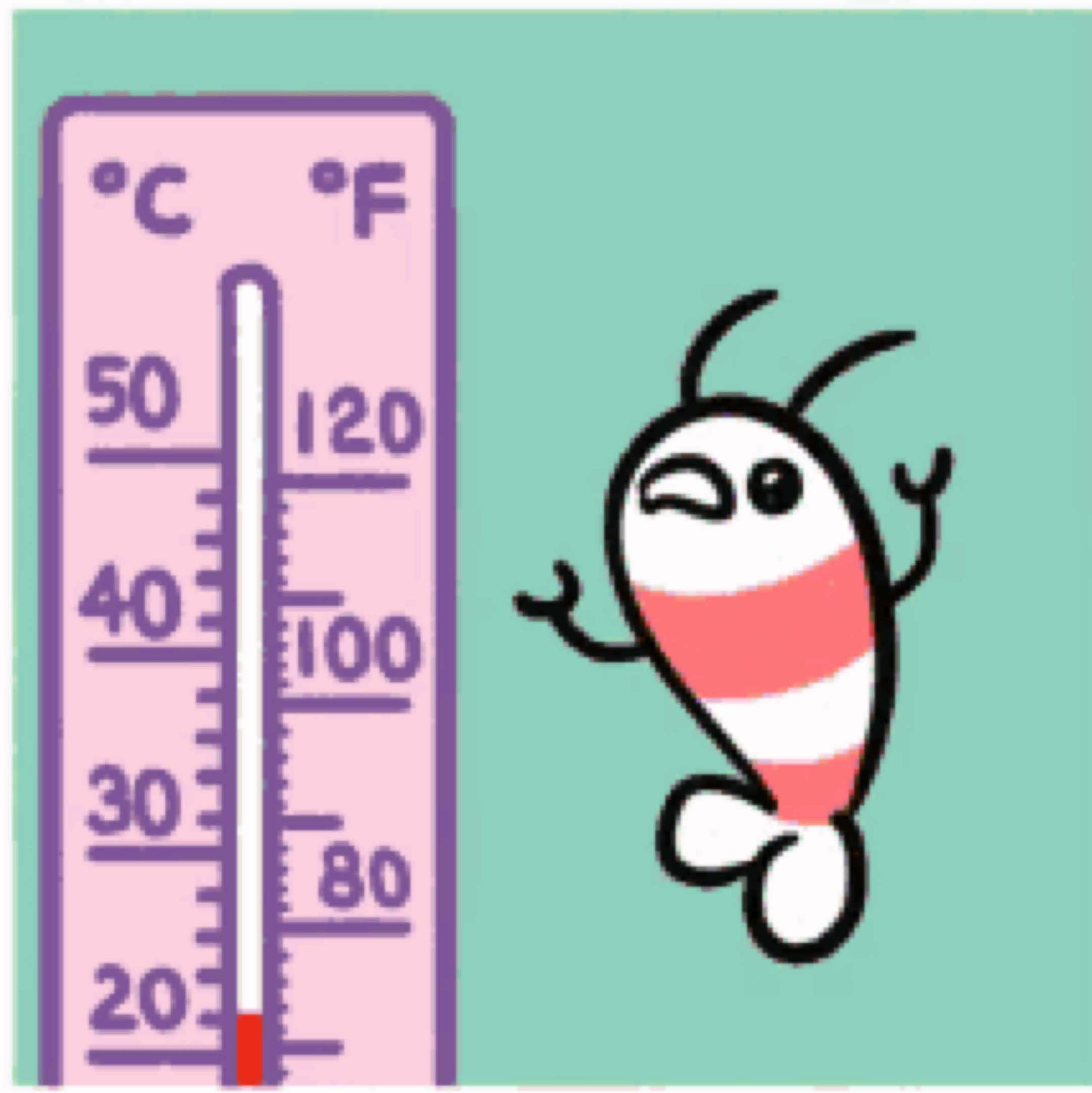
For future research changes would be the space for the test and

Does heat affect a tennis balls bounce

First Name

Last Name

How does changing the temperature of a tennis ball affect its height off of a Bounce.



Hypothesis

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- 4.I will need a oven
- 5.I will need paper

Procedure

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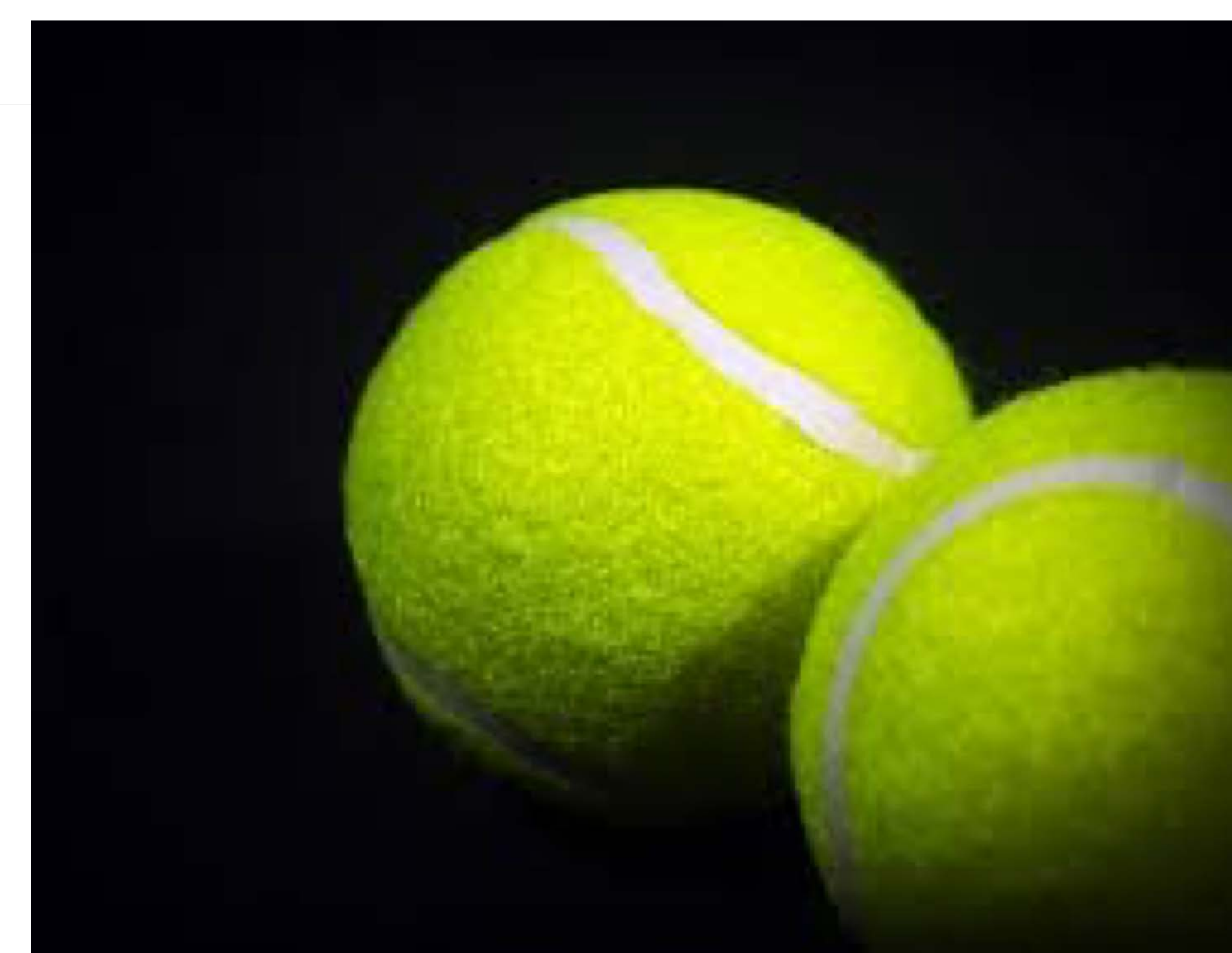
Pictures



Data Table

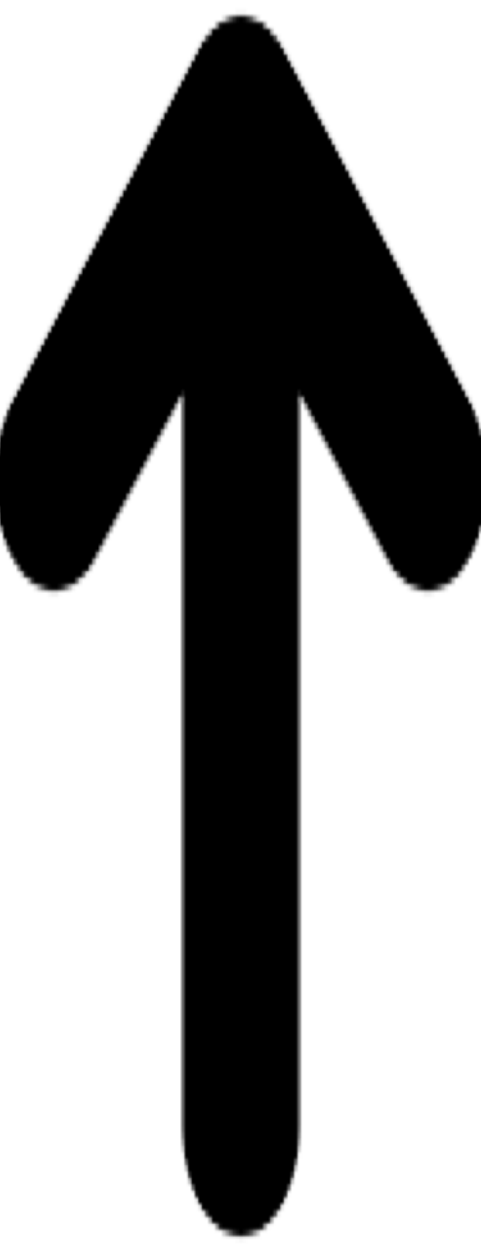
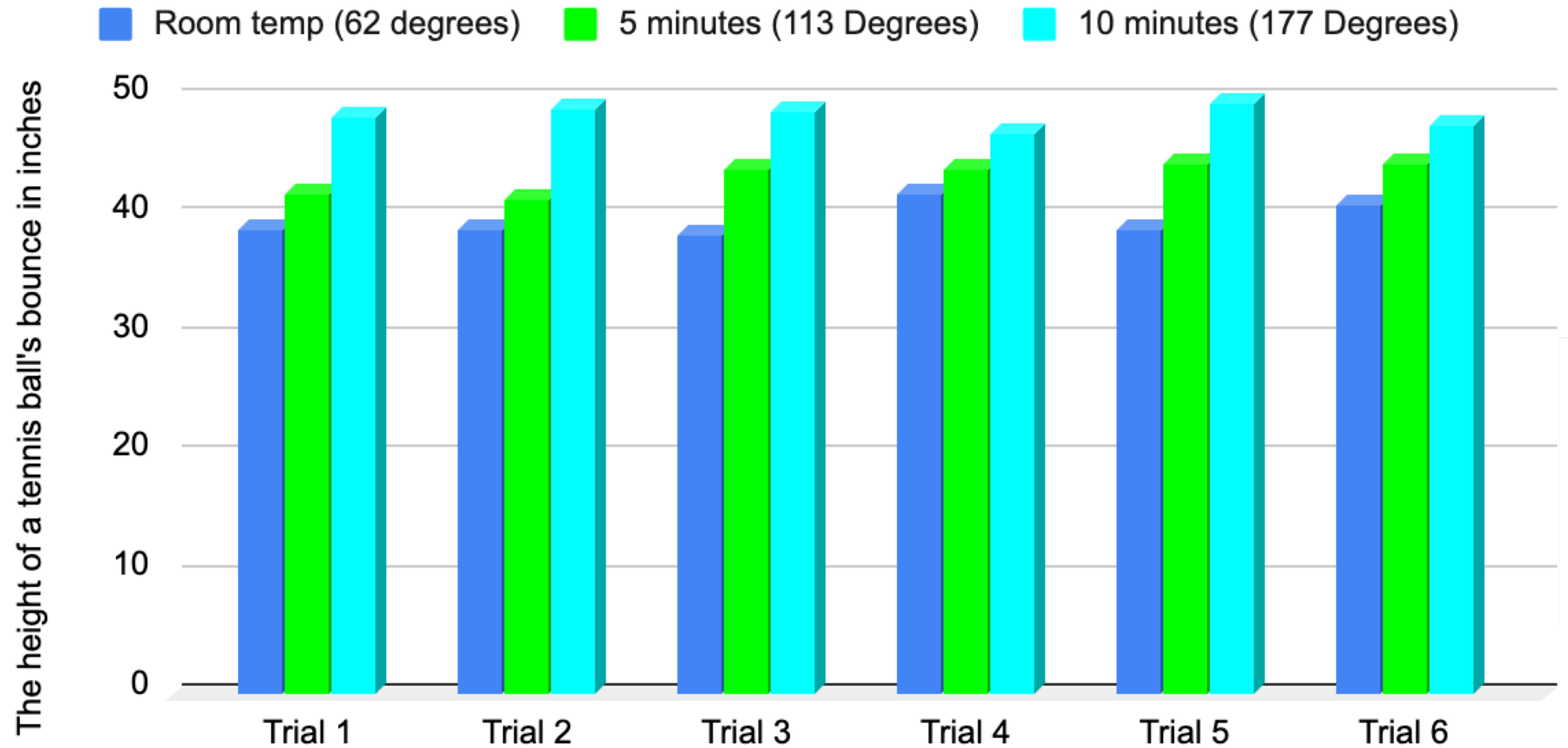
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Graph

does heat affect a tennis balls bounce



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Thank
you

