Blood Pressure Validation

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Mark /30

1. What was the independent variable in this latest investigation? (1 mark)
2. What was the dependent variable in this latest investigation? (1 mark)
3. State two controlled variables for this latest investigation? ( 2mark)
4. Read the data for the investigation below and use it to answer the questions that follow.

A new drug is being tested. It is hoped that the new drug will shorten the time taken for the body to recover from the flu Strain 24/B (Bulgarian Sweating Flu). 2000 men and woman (equal numbers) were deliberately infected with this strain of flu. 1000 of the group were given the New Drug. 1000 of the group where given a placebo. All of the 2000 people where between the ages of 20 years old and 25 years old. None were smokers, none were suffering from any other strain of virus before being deliberately infected with Strain 24/B. None of the people tested had disorders of the immune system.

1. For this investigation what is the independent variable?( 1mark)
2. What is the dependent variable? (1 mark)
3. State a possible hypothesis for this investigation. ( 2 marks)
4. Three different brands of bouncing ball were compared to find which had the highest rebound height. The Three brands were ***Balls-A-Go-Go***, ***Bigred*** and ***Happy Balls***. Each ball was dropped from a height of 1m onto a concrete surface. The rebound height was measured using a ruler. It was done a number of times for each ball. The following results were collected for the bounce heights. **Balls A-Go-Go** got rebound heights of 3cm, 5 cm and 4 cm. **Bigred** got rebound heights of 6cm, 5cm, 7cm and 80cm. **Happy Balls** got rebound heights of 10cm, 11 cm and 9cm.
5. Which result would be an outlier? (1 mark)
6. What was the dependent variable for this experiment? (1 mark)
7. State two controlled variable for this experiment stated in the question.

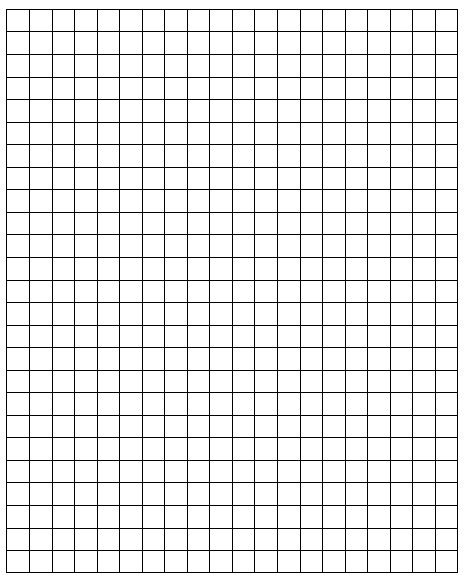
(2 marks)

1. Draw a suitable table of results for this data.

(5 marks)

1. Onto this grid draw a suitable graph for this data.

(6 marks)



More Questions on next page.

1. When blood pressure is stated two numbers are given. What does each number refer to? Use appropriate terms

(4 marks)

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## Why could Baroreceptors of the aortic arch be described as biological Sphygmomanometers?

## (1 mark)

## \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

## What are the units of measure for blood pressure?

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## (1 mark)

## What division of the autonomic nervous system would cause the change seen in blood pressure during the experiment that you ran?

## \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

## (1 mark)