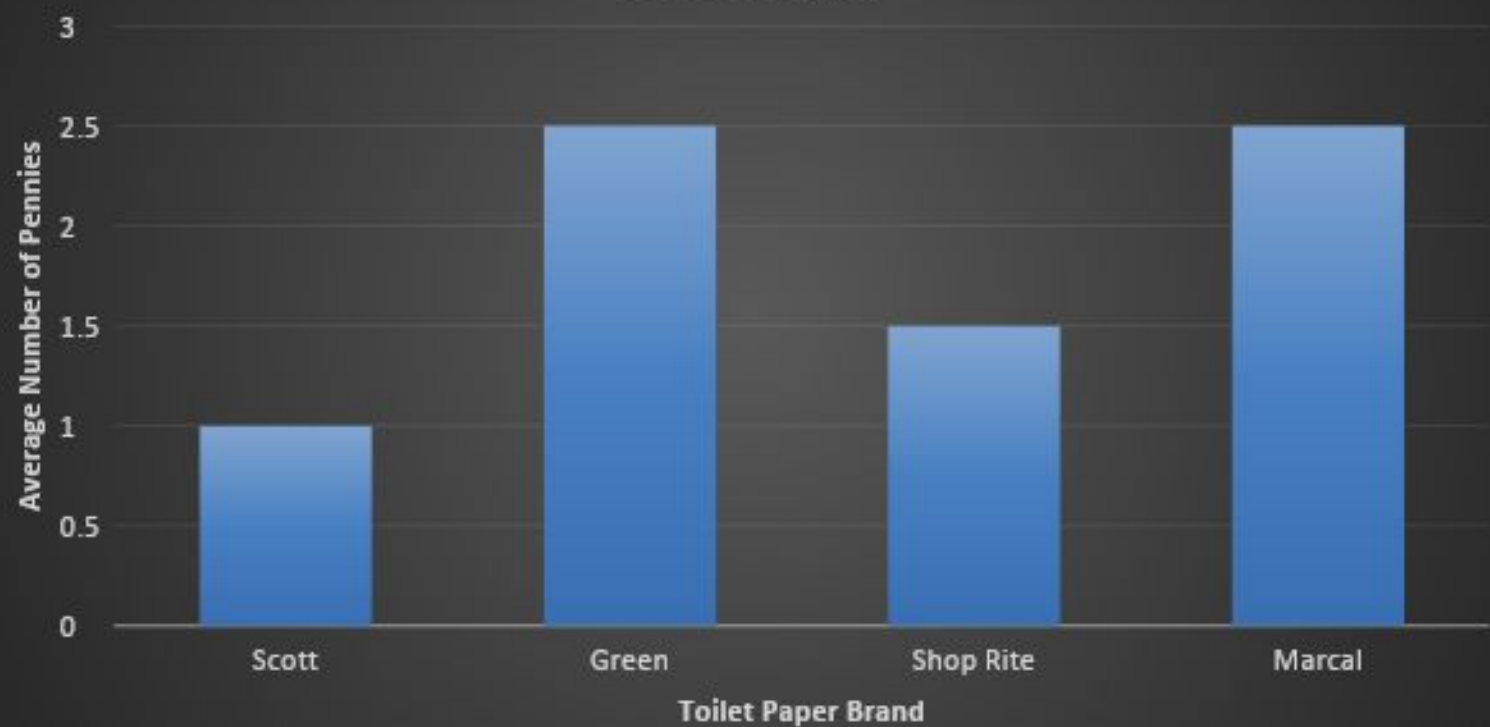


PARTS OF A LAB REPORT:

- 1. TITLE PAGE**
- 2. ABSTRACT**
- 3. INTRODUCTION**
- 4. METHODS (PROCEDURE)**
- 5. RESULTS (DATA)**
- 6. DISCUSSION**
- 7. CONCLUSION**

Average Number of Pennies Required to Break Toilet Paper





Unit Test Review

Scientific Method Unit Test Review

Question #1: What are the steps of the scientific method?

1. ask a question or identify the scientific problem
2. make observations/conduct research
3. write a hypothesis
4. write a procedure
5. carry out the experiment
6. collect and organize data
7. analyze data
8. draw conclusions

Define the following words:

control –

dependent variable –

independent variable –

constant –

Define the following words:

control – an experimental group that is used as a standard to compare results to

independent variable – a variable that you change ON PURPOSE

dependent variable – a variable that changes that you MEASURE

constant – a variable that does NOT change/MUST stay the same/NOT allowed to change

Independent and Dependent Variables

- Students at a University were split into two groups and each received a different text for a philosophy course. One group received a traditional text book, while the other received an interactive textbook on a tablet computer. After the course, the final exam marks between the two groups of students was compared.
- Independent Variable:
- Dependent Variable:



Independent and Dependent Variables



- Students at a University were split into two groups and each received a different text for a philosophy course. One group received a traditional text book, while the other received an interactive textbook on a tablet computer. After the course, the final exam marks between the two groups of students was compared.
- Independent Variable: **type of textbook**
- Dependent Variable: **final exam marks**



Basic Units

What are the units of :

Mass

Volume

Density

Basic Units

What are the units of :

Mass- g

Volume- mL or cm^3

Density- g/mL

Mass

Mass-

Mass

Mass- a measure of the
amount of matter in an
object.

Instruments

What is used to measure:

Length-

Mass-

Volume-

Instruments

What is used to measure:

Length- ruler

Mass- balance

Volume- graduated
cylinder, LxWxH

Graduated Cylinder Reading

Volume :



Graduated Cylinder Reading

Volume :

6.30 mL



Symbols

Milimeter-

Cubic centimeters-

Kilometer

Gram-

Centimeter-

Liter-

Miligram-

Meter-

Kilogram

Symbols

Milimeter- mm

Cubic centimeters- cm^3

Kilometer- km

Gram- g

Centimeter- cm

Liter- L

Miligram- mg

Meter- m

Kilogram- kg

Scientific Method Unit Test Review



At the end of an experiment what does a scientist form?

Conclusions



Scientific Method Unit Test Review



Which part of the scientific method process is most likely to follow hypothesizing?

Write a procedure



Scientific Method Unit Test Review



What is the role of a control in an experiment?

Serves as a standard so you can compare your results to it



Scientific Method Unit Test Review



If the amount of lighting is increased across a fish tank, then more brine shrimp will be found in the area where the light is the brightest. The dependent variable is the...

the number of brine shrimp



Scientific Method Unit Test Review



If mice are given food pellets high in salt content, then the mice should have an increase in urine output. Identify at least two constants in this experiment.

- mice of same gender, age, and species.
- same amount of food pellets given to all mice



Scientific Method Unit Test Review



What is the density of water?

1 g/mL



Scientific Method Unit Test Review



What is the formula for density?

$$D = m/v$$



Scientific Method Unit Test Review



What is the name of a statement that can be tested?

Hypothesis



Scientific Method Unit Test Review



What is the “factor” a scientist changes during a controlled experiment? In other words what is the variable called that he is testing?

independent variable



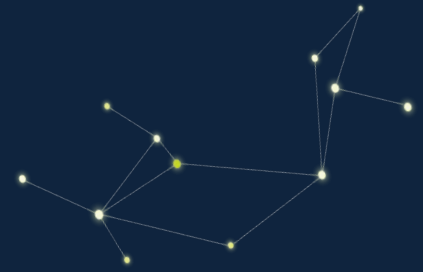
Scientific Method Unit Test Review



Which variable do you change on purpose?
independent variable



Scientific Method Unit Test Review



18. Which variable do you measure?
dependent variable



Scientific Method Unit Test Review



In an experiment, the variable that changes as a result of changes in the manipulated variable is the...

dependent variable



Scientific Method Unit Test Review



In an experiment, a scientist is studying how long it takes parachutes of different sizes to fall to the ground. What is the independent variable?

size of parachute



Scientific Method Unit Test Review



You want to know if the temperature of water affects how quickly a cube of sugar will dissolve. What would be the dependent variable?

time it takes sugar cube to dissolve



Closure



Find the density of a wooden block that has a mass of 425 g and dimensions .03 m x 10 cm x 150 mm?

