**PRACTICAL QUESTIONS O LEVEL COMPETENCE BASED**

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**The practical report**

1. Aim
2. Set up
3. Procedure
4. Results and treatment of results
5. Conclusion

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1. Tow students were having an argument that objects can be seen due to reflection of light. This took some time until they got to the conclusion when they got to learn about the laws of reflection. This therefore made them to be interested in verifying the laws.

**TASK:**

You are required to use the apparatuses given to carry out an investigation on verifying the laws of reflection.

**HINT:** it’s known that if *i* isthe angle of incidence and *r* is the angle of reflection, then

1. At a certain garage, a spring balance was being used to measure weight of metals. On the spring balance it’s indicated that the maximum weight is 200N. The workers got puzzled and they tried to increase the weight beyond 200N to see what happens. On loading the spring broke. This made them to become interested in knowing the weight per meter for the spring they had.

**TASK:**

You are required to write a practical report in which you are to determine the weight per meter of the nullified spring provided. Given are the slotted masses, a spring, retort stand and half meter rule.

1. In your report indicate clearly the independent, dependant and control variable.
2. What conclusion can you draw from your experiment?
3. In your report include the sources of errors and how you tried to minimize them.

**HINT:** It’s known that where ***x*** is the extension and k is the weight per meter. Where ***l*** is the new length of the strength in meters after adding mass and is the original length in meters

1. At a certain construction site, it was required that for every metal bar to be used its mass has to be known. It puzzled the workers for some time because they never had any instrument to use till a friend told them to use the principle of moments. They then developed an interest in knowing how the principle of moments can be used to determine the mass of the metal bars.

**TASK:**

1. Using a meter rule as the metal bar carry out an experiment and write a practical report showing how to determine the mass of the meter rule using the principle of moments.
2. Carry out a control experiment to check for the validity of your answer.
3. In your report indicate the control, dependent variable and the independent variable.
4. Include the sources of errors and how you tried to minimize them.

**Apparatuses given:**

* 1 50g mass
* 1 meter rule
* 1 Knife edge
* 1 big wooden block