Step 1 Measurement of wood block:

Procedure-

Utilize a ruler to measure the three sides of the wooden block. After this use the data from the measurements in the formula for the volume of a prism to determine the volume.

|  |  |  |  |
| --- | --- | --- | --- |
| Height | Length | Width | Volume |
| 15cm | 1.6cm | 8.2cm |  |

Calculations:

Step 2 Volume of a Cylinder

Procedure-

Use a Vernier caliper to calculate the diameter of the cylinder, then use a ruler to determine the height of the cylinder. Using this data we then plug the numbers into the equation of the volume of a cylinder.

Data-

|  |  |  |
| --- | --- | --- |
| Diameter | Height | Volume |
| 7.1mm | 100mm |  |

Calculations-

Step 3: Thickness of a piece of paper

Process: We will use a vernier calculator to measure the thickness of 100 pages and then divide the number we get by 100 to acquire an accurate reading.

Data:

Thickness of 100 sheets of paper = 5.4mm

Thickness of 1 sheet of paper: .054mm

Calculations:

Step 4: Determine the volume of your classroom

Process:

We will acquire the measurements of all the walls of the room with a meter stick, and then subtract the volume of the protrusions from the total volume of the room at maximum length of each measurement.

Data:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Room -obstructions | Obstruction A | Obstruction B | Obstruction C | Obstruction D | Door Addition |
|  |  |  |  |  |  |

Calculations:

Conclusions:

The purpose of this lab to acquaint us with the tools we’ll be using in the class throughout the year. It introduced us to the vernier caliper more than anything else. Using this was a key instrument in determining the thickness of non-normal objects and the volume of solid objects by the calculation of the diameter of the cylinder. While I believe my measurements to be accurate there is a likelihood of error due to the difficulty of measuring with obstructions in the way, as well and the use of a meter stick over a tape measure.