Math Trades 1

Activity #6 - Algebra

Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

In this activity you will calculate the length of each part based on the weight.

1. Weigh each part and record the weight below.
2. Use the volume formula given to calculate what the length should be. Record your answer in decimal form. Then convert to the nearest 16th of an inch. (Hint: Think about what your units used in the formula should be. Use that the density of aluminum is 0.098 lb/cu in which means 0.098 lb = 1 cu in).
3. Use a ruler to verify your length.

Volume of a cylinder:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Part | Diameter | 1.Weight | 2. Calculated Length  (Three decimal places) | 2. Calculated Length  (To the nearest 16th) | 1. Measured Length   (To the nearest 16th) |
| A | 1” |  |  |  |  |
| B |  |  |  |  |  |

Volume of a rectangular solid:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Part | width | height | 1.Weight | 2. Calculated Length  (Three decimal places) | 2. Calculated Length  (To the nearest 16th) | 3.Measured Length  (To the nearest 16th) |
| A | ” | ” |  |  |  |  |
| B | ” | ” |  |  |  |  |

This material is based on work supported by the National Science Foundation under Grant No. DUE-1406857. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation.

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For answer keys and additional resources about this activity, go to [www.nwtc.edu/mathnsf](http://www.nwtc.edu/mathnsf) and submit the form for more information.