**MATHEMATICS**

**GRADE 9**

**INVESTIGATION RUBRIC/MEMO**

**(INVESTIGATE HOW DOUBLING ALL DIMENSIONS OF RECTANGLE AFFECTS THE VOLUME)**

**2018**

**MARKS: 51**

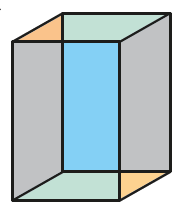
RUBRIC

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| CRITERIA |  |  |  | TOTAL |
| Possible dimensions of the box ( | One dimension is correct | Two dimensions are correct | All dimensions are correct | 6 |
| Dimensions and sketch | Dimensions and sketch of net is incorrect. | Either the dimensions or the sketch is incorrect | Both dimensions and the sketch are correct | 9 |
| Tabs on the net | No tabs | Insufficient tabs | Sufficient tabs | 3 |
| Box’s dimensions | Once box built the dimensions are less than correct | More than of the measured dimensions are correct. | or more of dimensions are correct | 9 |
| Calculating the volume of the original box | Calculations mostly incorrect | Most, but not all calculations correct | All calculations correct | 9 |
| Calculating the volume of the new box | Calculations mostly incorrect | Most, but not all calculations correct | All calculations correct | 9 |
| Conjecture | Incorrect | Correct, but poorly worded | Correct and well explained. | 6 |

**POSSIBLE ANSWERS:**

1. .

1. REFER TO THE NET.



1. When all three dimensions of a rectangle are doubled, the volume increases by 8 times.

or