**Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Expressions and Equations (8.EE.4)**

A student uses a calculator to estimate the number of leaves in a forest. The student’s calculation is based on an estimate of about 2 x 105 leaves on a mature tree. After the student performs some calculations, the calculator displays the result 

Which statement provides a reasonable explanation for the calculator’s result?

|  |  |
| --- | --- |
| Choose yes or no | Explain your thinking |
| A. The result indicates an estimate of 200,000,000 leaves. This is reasonable because a forest has many trees.    Yes or No |  |
| B. The result indicates an estimate of 28. This is reasonable because it represents a value greater than the number of leaves on a single tree.  Yes or No |  |
| C. The result indicates an estimate of 0.00000002. This is not a reasonable result because it indicates that the estimated number of leaves is less than one.  Yes or No |  |
| D. The result indicates an estimate of -16. This is not a reasonable result because there cannot be a negative number of leaves in the forest.  Yes or No |  |

Source: PARCC Spring 2018 Grade 8 Released Items <https://assessmentresource.org/wp-content/uploads/2019/08/Grade-8-Math-Item-Set-2018.pdf>

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