Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Table #: \_\_\_\_\_\_\_ Period: \_\_\_\_\_\_ Date: \_\_\_\_\_\_

**8.1C NOTES – EFFECTS ON VOLUME BY DOUBLING THE DIAMETER (8.G.9)**

**\*\*\* Start with Lesson Launch on the back\*\*\***

**Similar Quiz Question #8:** *If the diameter of a cylinder is doubled, and the height stays the same, does the volume of a cylinder double too? If not, what does it do? Create examples of this to test it out. Explain if the volume doubles and why or explain what it does based on the examples you have created. You will need to create at least 3 examples to make a case.* **ROUND TO THE NEAREST TENTH**

**EXAMPLE 1**

|  |  |
| --- | --- |
| Cylinder 1:  Diameter \_\_\_\_\_\_\_; Height \_\_\_\_\_\_\_  Volume \_\_\_\_\_\_\_\_ | Cylinder 2 (Hint: Diameter of Cylinder 2 should be twice as much as Diameter of Cylinder 1. Height of both should be the same.)  Diameter \_\_\_\_\_\_\_; Height \_\_\_\_\_\_\_  Volume \_\_\_\_\_\_\_\_ |

**EXAMPLE 2**

|  |  |
| --- | --- |
| Cylinder 1:  Diameter \_\_\_\_\_\_\_; Height \_\_\_\_\_\_\_  Volume \_\_\_\_\_\_\_\_ | Cylinder 2:  Diameter \_\_\_\_\_\_\_; Height \_\_\_\_\_\_\_  Volume \_\_\_\_\_\_\_\_ |

**EXAMPLE 3**

|  |  |
| --- | --- |
| Cylinder 1:  Diameter \_\_\_\_\_\_\_; Height \_\_\_\_\_\_\_  Volume \_\_\_\_\_\_\_\_ | Cylinder 2:  Diameter \_\_\_\_\_\_\_; Height \_\_\_\_\_\_\_  Volume \_\_\_\_\_\_\_\_ |

**CONCLUSION.** Use the examples you created above to help you write a clear, well written explanation.

|  |
| --- |
| If the diameter of a cylinder is doubled, and the height stays the same, does the volume of a cylinder double too? If not, what does it do? |

**BACK 🡪**

**ROUND TO THE NEAREST TENTH**

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| --- | --- | --- | --- |
| **LESSON LAUNCH**   |  |  |  | | --- | --- | --- | | 1. Find the volume of a cylinder with a diameter of 16cm and height of 4cm. | 1. Find the volume of a cylinder with a diameter of 8cm and height of 4cm. | 1. How does the volume of a cylinder change when its diameter is halved? Explain. | |