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

**8.2B Volumes of Cones\_Classwork**

*Objective: find the volumes of cones, find the heights of cones given the volumes, solve real-life problems (CC.SS.8.G.9\_MP4 Model with Mathematics)*

*Video:* [*https://www.youtube.com/watch?v=2T7YxFVCVwI*](https://www.youtube.com/watch?v=2T7YxFVCVwI) *or* [*https://www.youtube.com/watch?v=Ex-peEPTWGI*](https://www.youtube.com/watch?v=Ex-peEPTWGI)

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| FORMULA FOR VOLUME OF A CONE:  or |

**FIND THE HEIGHT OF THE CYLINDER GIVEN VOLUME & RADIUS OR DIAMETER.**

**Round to the nearest hundredth.**

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| **EXAMPLE NOTES**   |  |  | | --- | --- | | **1.**  Find the height. | **2.**  Find the diameter of a cone with a volume of 3,768 cubic centimeters and a height of 9 cm. | |

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| 1. Find the height. | 2. Find the height. |
| 3. Find the diameter of a cone with a volume of 1,256 in3 and a height of 12 in. | |

HW: (8.2B) p. 347 (#1-8, 10) Solution: 1) 2) 3) 4) 5) 6) 7) 8) 10)

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| 1. You must answer a trivia question before the sand in the timer falls to the bottom. The sand falls at a rate of 50 cubic millimeters per second. How much time do you have to answer the question? Round to the nearest hundredth. |
| 1. LEMONADE STAND: You have 10 gallons of lemonade to sell. () 2. Each Customer uses one paper cup. How many paper cups will you need? \_\_\_\_\_\_\_\_\_\_\_\_\_ 3. The cups are sold in packages of 50. How many packages should you buy? \_\_\_\_\_\_\_\_\_\_\_\_\_ |

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| 1. Find the Height. Round to the nearest tenth. | 1. Find the diameter. Round to the nearest tenth. |