

Module 6 Review Toolbox

*Module 6 Help sheet: [V22_Mod6HelpSheet](#)

Question/Topic:	Room to work & Video:														
<p>Key Words:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">Diameter</td><td style="width: 50%;">Radius</td></tr> <tr> <td>Chord</td><td>Circumference</td></tr> <tr> <td>Volume</td><td>Cavalieri's principle</td></tr> <tr> <td>Right Cylinder/cone</td><td>Oblique Cylinder/cone</td></tr> <tr> <td>Percent of Change</td><td>Density</td></tr> <tr> <td>Mass</td><td>Cross Section</td></tr> <tr> <td>Net Drawing</td><td>Surface Area</td></tr> </table>	Diameter	Radius	Chord	Circumference	Volume	Cavalieri's principle	Right Cylinder/cone	Oblique Cylinder/cone	Percent of Change	Density	Mass	Cross Section	Net Drawing	Surface Area	<p>*Please be sure you know and understand the meaning of each word. These can all be found throughout the toolbox note guides for Module 6.</p>
Diameter	Radius														
Chord	Circumference														
Volume	Cavalieri's principle														
Right Cylinder/cone	Oblique Cylinder/cone														
Percent of Change	Density														
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Net Drawing	Surface Area														
<p>Question 1: A liquid that exactly fills a 182.8 milliliter container has a density of 0.135 grams/milliliter. What is the weight (in grams) of the liquid? Round to the nearest hundredth.</p>	<p>Video: Mod6Review_Question1</p>														
<p>Question 2: Pyramid A is a square pyramid with a base side length of 10 inches and a height of 12 inches. Pyramid B has a volume of 2050 cubic inches. How many times bigger is the volume of pyramid B than pyramid A? Give your answer as a percent.</p>	<p>Video: Geo602-video7</p>														
<p>Question 3: Samantha says that the volume of a square pyramid with base edges of 9.7 in and a height of 9 in is equal to the volume of a cylinder with a radius of 5.47 in and a height of 3 in. Samantha rounded her answers to the nearest whole number. Examine Samantha's calculations. Is she correct?</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <tr> <td style="width: 50%; padding: 5px; vertical-align: top;"> <p style="text-align: center;">Volume of Square Pyramid</p> $V = \frac{1}{3} B(h)$ $V = \frac{1}{3} (94.09)(9)$ $V = \frac{1}{3} (846.81)$ $V = 282 \text{ in}^3$ </td><td style="width: 50%; padding: 5px; vertical-align: top;"> <p style="text-align: center;">Volume of Cylinder</p> $V = \pi r^2 h$ $V = \pi (5.47^2)(3)$ $V = \pi (29.9209)(3)$ $V = \pi (89.7627)$ $V \approx 282 \text{ in}^3$ </td></tr> </table>	<p style="text-align: center;">Volume of Square Pyramid</p> $V = \frac{1}{3} B(h)$ $V = \frac{1}{3} (94.09)(9)$ $V = \frac{1}{3} (846.81)$ $V = 282 \text{ in}^3$	<p style="text-align: center;">Volume of Cylinder</p> $V = \pi r^2 h$ $V = \pi (5.47^2)(3)$ $V = \pi (29.9209)(3)$ $V = \pi (89.7627)$ $V \approx 282 \text{ in}^3$	<p>Video: Mod6Rev_Question3</p>												
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<p>Question 4:</p> <p>Joe is painting cylindrical posts before putting them in his yard. They are each 4 feet tall and have a diameter of 1 foot. There are 9 posts in all. How much paint will Joe need to paint all the surfaces of the 9 posts? Use 3.14 for π, and round your answer to the nearest hundredth.</p>	<p>Video: Geo604-video7</p>												
<p>Question 5:</p> <p>A figure is located at (1, 0), (1, -3), (4, -3), and (4, 0) on a coordinate plane. What kind of 3-D shape would be created if the figure was rotated around the x-axis? Explain and include dimensions.</p>	<p>Video: Geo604-video6</p>												
<p>Question 6:</p> <p>Blizzard ice cream has a special bubble gum snow cone on sale. The cone is a regular snow cone that has a spherical piece of bubble gum at the bottom of the cone. The radius of the snow cone is 2 inches, and the height of the cone is 3 inches. If the diameter of the bubble gum is 0.5 inches, what equation would be used (including the values) to calculate the volume of the cone that can be filled with flavored ice?</p>	<p>Video: Mod6Review Question6</p>												
<p>Question 7:</p> <p>Use the chart below to answer the questions:</p> <p>Which of these states has the greatest population density? Which has the least?</p> <table><tr><th>State</th><th>Population (2017 estimate)</th><th>Area (square mi)</th></tr><tr><td>Florida</td><td>21,312,211</td><td>65,757</td></tr><tr><td>Texas</td><td>28,704,330</td><td>268,596</td></tr><tr><td>Michigan</td><td>9,991,177</td><td>96,713</td></tr></table>	State	Population (2017 estimate)	Area (square mi)	Florida	21,312,211	65,757	Texas	28,704,330	268,596	Michigan	9,991,177	96,713	<p>Video: Geo603-video3</p>
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Florida	21,312,211	65,757											
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<p>Question 8:</p> <p>A chain link fence is being built. One link in the chain is made from a cylinder that has a radius of 3.6 cm and a height of 28 cm. How much plastic coating would be needed to coat the surface of the chain link?</p>	<p>Video: V22_604-video4</p>
<p>*Geometry EOC Review:</p> <p>Timmy has a box which is 3" wide, 4" long, and 2" high. Paul has a box whose dimensions are three times as wide, long, and high. How much more volume does Paul's contain?</p> <p>A. 9 times more B. 18 times more C. 8 times more D. 3 times more E. 27 times more</p>	<p>Video: Mod6Review_EOCvideo</p>
<p>**No Honors lesson in Module 6**</p>	