02/06/2025 – Area and Volume

Review of Unit 8 for Grade 7 Math (7A) – Fun theme: Pool Party Questions to follow along with show. Watch: Math Homework Hotline

1)	The diameter of a float shaped like a wheel is 24 inches. What distance, in inches, does the float go through the water when it makes one complete turn? Use 3.14 for π . (MA.7.GR.1.3)	2) Find the exact circumference of the circle. (MA.7.GR.1.3)
3)	Sarah is baking a round cake for a party. She wants to cover the top of the cake with frosting. The cake has a diameter of 16 inches. How many square inches of frosting will she need to cover the entire top of the cake? Use 3.14 for π . (MA.7.GR.1.4)	 4) You are painting circles on the pool deck. What is the approximate area of the circle below that will be painted yellow if the radius is 3 inches? Use 3.14 for π. (MA.7.GR.1.4)
5)	Emma enlarged her 6-inch by 8-inch party photo to make a large print. She resized it so that the longest side is now 32 inches. What is the length of the shortest side of the enlarged print? (MA.7.GR.1.5)	 6) Similar figures are shown. A scale factor of ¹/₆ was applied to Pink Figure 1 to make Green Figure 2. What is the value of n? (MA.7.GR.1.5) Image: Comparison of the provided state of the

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7)	A 12-ounce soda can has a diameter of 2.6 inches and height of 4.8 inches. Find the surface area of the soda can. Use 3.14 for π . Round your answer to the nearest tenths, if necessary. (MA.7.GR.2.1)	8)	A cylindrical pool toy storage container has a radius of 4 inches and a surface area of 402.12 square inches. What is the height of the container to the nearest inch? Use the formula SA=2πrh+2πr ² . Use 3.14 for π. (MA.7.GR.2.2)
9)	Calculate the volume of the cylindrical pool toy storage container used in question 8 in terms of π. (MA.7.GR.2.3) Radius of 4 inches Surface area of 402.12 square inches Height of inches	10)	Karim is setting up a round inflatable pool in the yard for the little kids to play. The pool measures $3\frac{1}{2}$ feet across and 16 inches deep. What is the volume of water needed to fill the pool all the way to the top? Use 3.14 for π . (MA.7.GR.2.3)