# Volumes of 3D Shapes

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| Name: |  |  | Math 2202 |
| Results: |  /50 = %  |  |  | Instructor: Mr. Gillett |

Answer all questions in the space provided. Show workings where possible to get full marks.

1. Which of the following is not a 3 dimensional figure? **24 marks**
	1. Cone
	2. Cylinder
	3. Prism
	4. Rectangle
2. A recipe for pancakes calls for ¼ cup of melted butter. How many fluid ounces would that be?
	1. 1 fluid ounce
	2. 2 fluid ounces
	3. 4 fluid ounces
	4. 8 fluid ounces
3. Which object would you estimate has a 1 gallon capacity?
	1. bathtub
	2. drinking glass
	3. small gas can
	4. tea pot
4. Which of the imperial units would be equal to 1 pint?
	1. 8 fluid ounces
	2. 1 cup
	3. 2 cups
	4. 1 quart
5. What is the capacity of a can of pop?
	1. The same as its volume
	2. Greater than its volume
	3. Less than its volume
	4. It depends on how full it is
6. How many cones could be made with the material of the cylinder with the same sized base and height?
	1. 1
	2. 2
	3. 3
	4. 4
7. Which list of units is in the correct order from smallest to largest?
	1. Pint, cup, litre, gallon.
	2. Ounce, cup, pint, gallon
	3. Gallon, quart, pint, cup
	4. Ounce, pint, cup, litre
8. What is the volume of the shape shown here?

* 1. 140 cm3
	2. 192 cm3
	3. 280 cm3
	4. 560 cm3
1. A steel oil drum is 35 inches tall and has a diameter of 24 inches. What is the approximate capacity of the drum?
	1. 452 in3
	2. 15800 in3
	3. 49740 in3
	4. 63330 in3
2. The popcorn container shown has a square base that is 10 cm wide, and is 22 cm tall. Approximately how much popcorn could be put into the container?
	1. 120 cm3
	2. 230 cm3
	3. 2300 cm3
	4. 4900 cm3
3. A drink container says it holds 1000 ml. Which imperial measurement would be an easier way of describing this container?
	1. 1 cup
	2. 1 gallon
	3. 1 pint
	4. 1 quart
4. Which shape would be a good example of a composite 3D figure?
	1. A computer tower
	2. A coke bottle
	3. A math textbook
	4. A soup can
5. Calculate the volume of each of the following 3D figures. **Show your workings 9 marks**
	1.



* 1.



* 1.
1. Answer the questions about the Composite Figures shown? **Show all Workings. 8 marks**
	1. How much space is in the Security Camera Housing



* 1. How much material is needed to make the Coupler for a PVC pipe



1. The bathroom at the O’Brien Centre is an L-shaped room with a 10 foot ceiling.  **5 marks**
	1. Given the floor diagram shown, what is the total capacity for air of the room?

* 1. If the vent fans can draw out 100 ft3/min, you long would they take to exchange all the air in the bathroom?
1. A scoop of ice cream has a diameter of 2.5 inches.  **4 marks**
	1. What is the approximate volume of ice cream

used in a double scoop cone serving?



* 1. How many of these cones can you get from a 200 in3 box of Chapman’s ice cream?