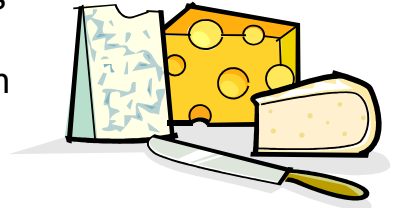


This work sample has been revised.

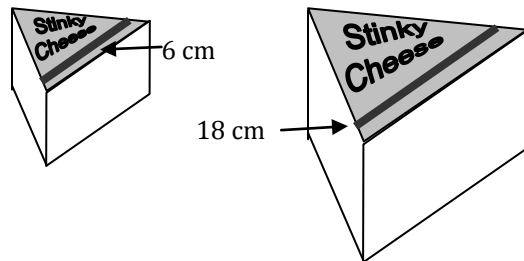
Name \_\_\_\_\_ Teacher \_\_\_\_\_ Date \_\_\_\_\_

## Stinky Cheese Company

Seventy to seventy-five percent of what we perceive as taste actually comes from our sense of smell<sup>1</sup>. So, the Stinky Cheese Company puts scratch-and-sniff strips on the labels that smell just like the cheese, so customers can decide which cheese they want to buy.



1. Stinky Cheese puts gray labels on their cheese. The gray labels on all of their cheese are similar isosceles triangles. The black scratch-and-sniff strips are 6 cm on the small wedge of cheese and 18 cm on the large wedge. The area of the label on the small wedge of cheese is  $12 \text{ cm}^2$ .



What is the area of the label of the large wedge of cheese?

Show your work using words, numbers, and/or diagrams.

2. The cheese is sold in small and large isosceles triangular prisms that are similar. The volume of the large wedge of cheese is  $540 \text{ cm}^3$ .

What is the volume of the small prism of cheese?

Show your work using words, numbers, and/or diagrams.

3. Stinky Cheese wraps each triangular prism of cheese in brown paper. The brown wrapping will cover all the faces of the prism. They want to cut out the wrapping from a flat piece of brown paper.
- Clearly draw and label a 2-dimensional diagram of the brown paper wrapping for the small prism of cheese.
  - Clearly draw and label a 2-dimensional diagram of the brown paper wrapping for the large prism of cheese.

4. Ms. Gouda, Vice President of Marketing of the Stinky Cheese Company, presents a new design for cheese. Here is what she told the marketing team:

- The new design is called "Stinky Cheese Wheels", which are cylinders.
- The cheese wheels come in two sizes (small and large) that are similar cylinders.
- The small cheese wheel has a height of 3 cm and the large cheese wheel has a height of 7.5 cm.
- The volume of the small cheese wheel is approximately 365.4 cubic centimeters.

The marketing team wants to know the volume of the large cheese wheel.

- Determine the volume of the large cheese wheel.
- Describe how you know the volume you determined is for a cylinder similar to the small cheese wheel. Use specific information about the small cheese wheel measurements and your work.

Show your work using words, numbers, and/or diagrams.

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COE Targets:  ME03  GS01  SR05