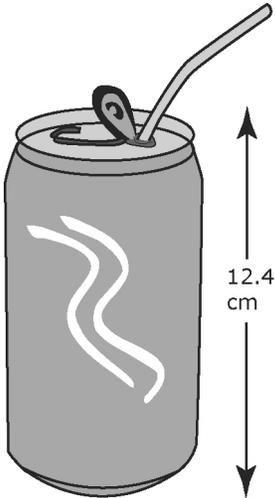
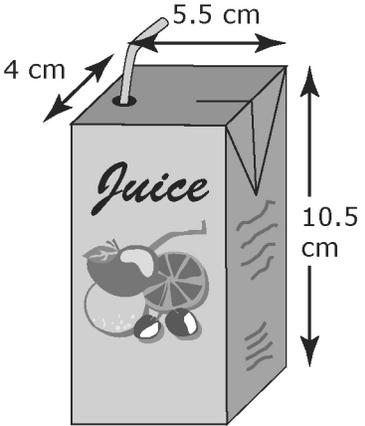
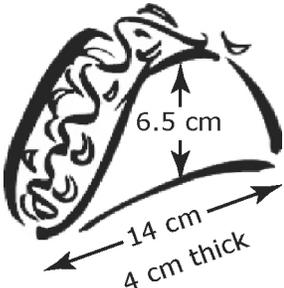
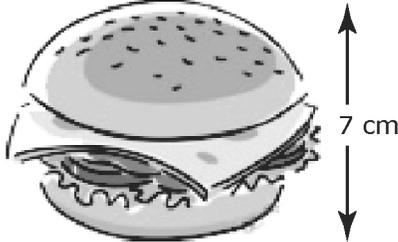
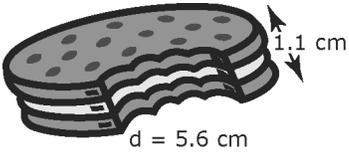
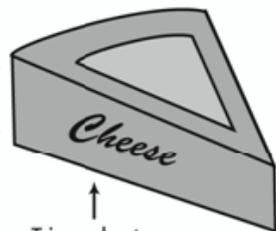
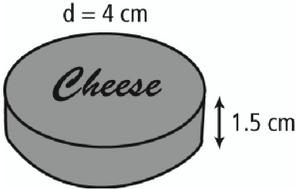
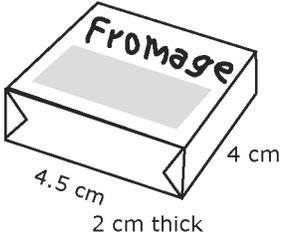


Name: _____

Date: _____

Design a Picnic Box

Ants "R" Not Us wants a new design for its picnic boxes. Design a container using the *least* amount of packaging that will hold three of the following items.

Drink	Sandwich	Snack
 <p style="text-align: center;">12.4 cm</p> <p style="text-align: center;">d = 6.6 cm</p>  <p style="text-align: center;">5.5 cm</p> <p style="text-align: center;">4 cm</p> <p style="text-align: center;">10.5 cm</p>	 <p style="text-align: center;">6.5 cm</p> <p style="text-align: center;">14 cm</p> <p style="text-align: center;">4 cm thick</p>  <p style="text-align: center;">7 cm</p> <p style="text-align: center;">d = 9 cm</p>	 <p style="text-align: center;">1.1 cm</p> <p style="text-align: center;">d = 5.6 cm</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;">  <p style="text-align: center;">3 cm</p> <p style="text-align: center;">Cheese</p> <p style="text-align: center;">↑</p> <p style="text-align: center;">Triangular top base = 3.2 cm height = 6 cm</p> </div>  <p style="text-align: center;">d = 4 cm</p> <p style="text-align: center;">Cheese</p> <p style="text-align: center;">1.5 cm</p>  <p style="text-align: center;">Fromage</p> <p style="text-align: center;">4.5 cm</p> <p style="text-align: center;">4 cm</p> <p style="text-align: center;">2 cm thick</p>



Name: _____

Date: _____

- 1.** Choose an item from each of the three categories. Use at least two different shapes.
 - a)** Build a net for each item.
 - b)** Calculate the volume for each item. Round up the volume to the next cubic centimetre.

- 2.** Design a 3-D container to hold your items.
 - Try to keep your container as small as possible but still large enough to hold the items.
 - Draw and label the top, front, and side views.
 - Justify your design.

- 3.** Consider how the three items fit into the container. How much space is left over? Justify your answer.

- 4.** Add a fruit to your lunch. Do you need to change the volume of your picnic box? Justify your response.

