Cat food and Recycling



Donna has several cats. She feeds them soft food every morning and evening. Her family believes in recycling and they try to recycle as much as possible. But they also worry that the sharp edges of the cat food can will cut a worker sorting recyclable items at the plant, so they throw away the lid of the cat food can. Lately Donna has been curious about amount of metal in the lid and it got her to thinking…

1. Donna wants to compare the lids that are thrown in the trash. The cat food comes in two different size cans, shown below. She measured the diameter and height of each can. For each lid, determine what percent it is of the entire surface area of the can.

6.5 cm

8.5 cm

3.7 cm

4 cm

1. Based on your results in #1, what size cat food can should Donna buy for her cats? Explain your answer.
2. Donna feeds her cats one small can of cat food each day. She also knows that it takes both cats two days to eat a large can. Determine the total amount of metal in the cat food lids that would be thrown away in one year for each size of can.
3. Based on all your results, what size cat food can should Donna buy for her cats? Explain your answer.