

Math 141
Assessment of
Standard A6

Instructions: Show all steps necessary and include words to explain your work. Remember: You are convincing me that you understand the concepts, not simply giving me “the answer”.

Name: _____

A6. An aluminum **cylindrical** soda can **with no top** is being made to hold 8π cubic inches of soda. What is the minimum amount of aluminum sheeting that can be used to make such a can? Make sure to justify that your answer is optimal.

*[Hint: The surface area of **only the curved side** of the can is calculated by taking the circumference of the circle and multiplying by the height of the can.]*