

# Math 1513 - College Algebra

## Written Assignment 5 - Due 2017.02.12

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Directions: Please answer the following question in complete sentences. Be sure to label all geometric objects in any illustrations (if any). I will accept an answer in a scanned image format, as a pdf, or as a picture taken and sent from your awesome smart phone.

Problem: The surface area  $SA$  of a cylinder is given by the formula  $SA = 2\pi r^2 + 2\pi r h$ , where  $h$  is the height of the cylinder and  $r$  is the radius of the base. Find the height of a cylinder that has a radius of 12 cm and a surface area of  $1400 \text{ cm}^2$ .