Prepare for Tomorrow's Rational Function Question

DO NOW

Reynolds Metal Company manufactures aluminum cans in the shape of a cylinder. Each can has a capacity of 500 cubic centimeters. The top and bottom of the can will be made of a special aluminum alloy that costs \$0.05 per square centimeter. The sides of the can are to be made of material that costs \$0.02 per square centimeter.

- a. Express the cost of material, *C*, as a function of the radius of the can.
- b. Sketch C = C(r).
- c. What value of *r* results in least cost?
- d. What is the least cost?



PLEASE TURN OVER TO THE OTHER SIDE

A sheet of paper for a poster contains 12 square feet. The top and bottom margins are 4" and the side margins are 3".

- a. Construct a function.
- b. What is the domain of this function?
- c. What are the dimensions of the printed area if it is to be a maximum?

