



## Problem of the Week

### Problem C

#### A Homemade Expression of Love

Maggie wants to make a special card for Valentine's Day. She starts with a square piece of red paper with a side length of 12 cm. She then pastes two white semi-circles, each with radius 3 cm, and a white triangle onto the square sheet of red paper, as shown below. (The dashed line and the right angle symbols will not actually be on the finished card.).

She is going to write her valentine a message in red ink on the white region of the card.

Determine the total amount of area available in the white region for Maggie's special valentine greeting.

