



Problem of the Week

Problem D

Sentimental with Shapes

This year for Valentine's Day you wish to send handmade greetings created using geometric shapes. You start by attaching two identical, white semi-circles to the hypotenuse of a white, isosceles right-angled triangle whose equal sides each measure $\sqrt{32}$ cm. You then mount this new figure onto a rectangular piece of red construction paper as shown below. (The dashed line, the right angle symbol and the equal side measure markings will not be a part of the finished card.)

To complete your creation you write a personal message in red on the white region of the card.

Determine the total amount of area available in the white region for your special valentine sentiment.

