



Area	$A_i$	$\bar{x}_i$	$\bar{y}_i$	<del><math>\bar{z}_i</math></del>
1	$2 \times 6 = 12$	$2/2 = 1$	$6/2 = 3$	
2	$12(2) = 24$	$2 + 12/2 = 8$	$4 + 2/2 = 5$	
3	$2(6) = 12$	$2 + 12 + 2/2 = 15$	$6/2 = 3$	
$A = \sum A_i = 48 \text{ in}^2$				

$$A \bar{x} = \sum \bar{x}_i A_i$$

$$48 \bar{x} = 12(1) + 24(8) + 12(15)$$

$$\bar{x} = 8 \text{ in (which we know is correct because the object has symmetry).}$$

Also,

$$A \bar{y} = \sum \bar{y}_i A_i$$

$$48 \bar{y} = 12(3) + 24(5) + 12(3)$$

$$\bar{y} = 4 \text{ in from the bottom or 2 in from top}$$