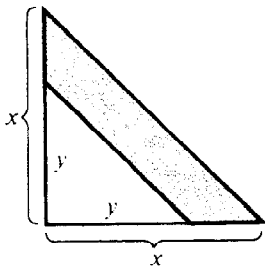
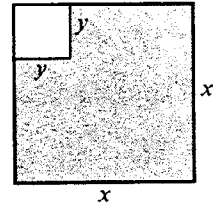
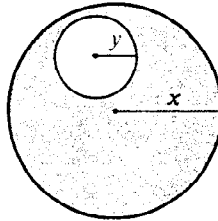


106. a. Write an expression for the area of the shaded region.  
 b. Express the area in factored form.  
 c. By making one cut in the shaded region, rearrange the pieces into a rectangle whose area is given by your answer to (b).
107. The sail pictured is a right triangle of base and height  $x$ . It has a colored stripe along the hypotenuse and a white triangle of base and height  $y$  in the lower corner.
- a. Write an expression for the area of the colored stripe.  
 b. Express the area of the stripe in factored form.  
 c. If the sail is  $7\frac{1}{2}$  feet high and the white triangle is  $4\frac{1}{2}$  feet high, use your answer to (b) to calculate mentally the area of the stripe.



PROBLEM 107



PROBLEM 108

108. An hors d'oeuvres tray has radius  $x$ , and the dip container has radius  $y$ .
- a. Write an expression for the area available for the chips (shaded region).  
 b. Express the area in factored form.  
 c. If the tray has radius  $8\frac{1}{2}$  inches and the space for the dip has radius  $2\frac{1}{2}$  inches, use your answer to (b) to calculate mentally the area for chips. (Express your answer as a multiple of  $\pi$ .)

## CHAPTER REVIEW

### A

#### [1.1]

■ Simplify.

- |  |             |   |           |
|--|-------------|---|-----------|
| 1. $-6^2$  | 2. $(-6)^2$ | 3. $(-2)^3$   | 4. $-2^3$ |
| 5. $(4 - 2)[3 - 2(3 - 4)]$   |             | 6. $2[1 + (6 - 2)] \div (-4)$   |           |
| 7. $\left[ \frac{6 - (-2)}{4 - 2} \right] \left[ \frac{3 + (-6)}{2 - 5} \right]$ |             | 8. $\left( 6 + 2 \left[ \frac{4 - (-6)}{6 - 4} \right] + 2 \right) - 3$ |           |