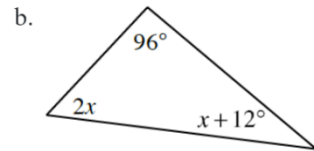
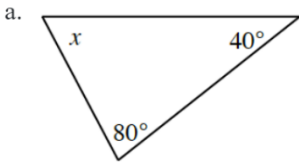


Name: \_\_\_\_\_

Period: \_\_\_\_\_ Date: \_\_\_\_\_

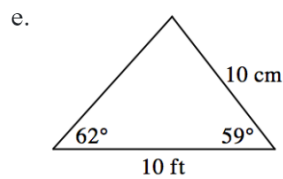
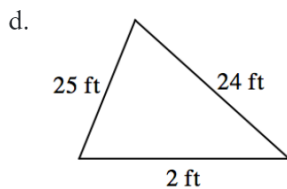
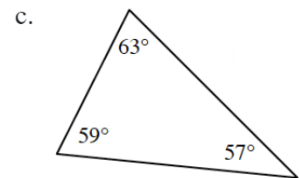
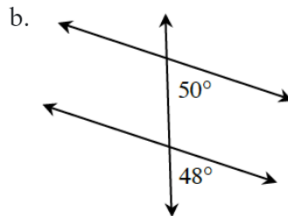
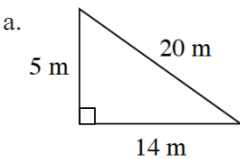
### Homework 1.3.4

**1-10.** Use the Triangle Angle Sum Theorem to write an equation and solve for  $x$  in each diagram below. Show all work.

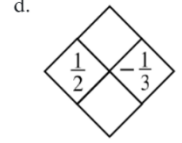
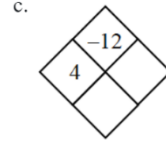
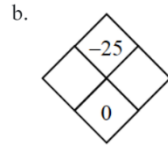
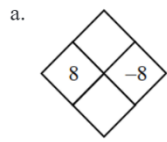
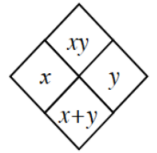


c. How can you verify that your answer for part (b) is correct?

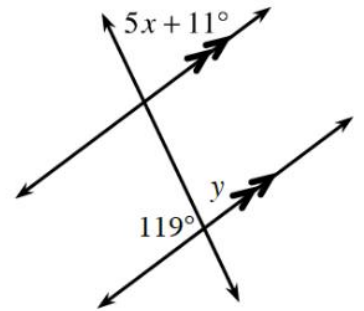
**1-11.** Examine each diagram below. Which diagrams are possible? Which are impossible? Justify each conclusion.



**1-12.** Copy and complete each of the Diamond Problems below. The pattern used in the Diamond Problems is shown at right.



**1-13.** Examine the angle pair relationships in the diagram at right. Then write and solve equations for  $x$  and  $y$ , if possible. Justify your work using angle relationships.



**1-14.** Examine the rectangles formed with tiles below. For each figure, write an equation showing that its area as a product of the width and length is equal to its area as a sum of its parts.

