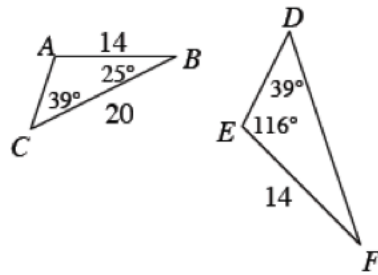


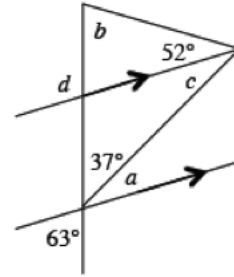
7-6. Examine $\triangle ABC$ and $\triangle DEF$ at right.

- a. Assume the triangles at right are not drawn to scale. Complete a flowchart to justify the relationship between the two triangles.

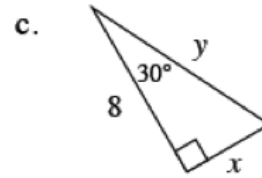
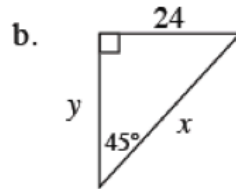
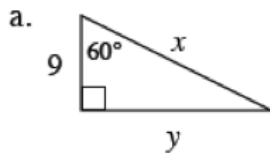


- b. Find AC and DF .

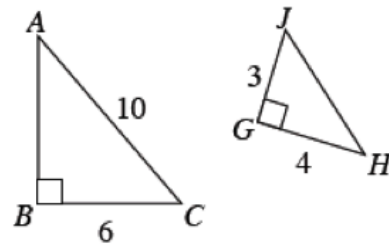
7-7. Use the relationships in the diagram at right to find the values of each variable. Name which geometric relationships you used.



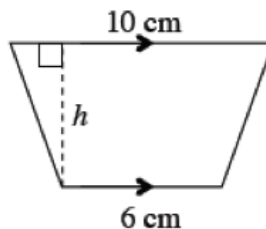
7-10. Without using your calculator, find the exact values of x and y in each diagram below.



7-15. What is the relationship between $\triangle ABC$ and $\triangle GHJ$ at right? Create a flowchart to justify your conclusion.

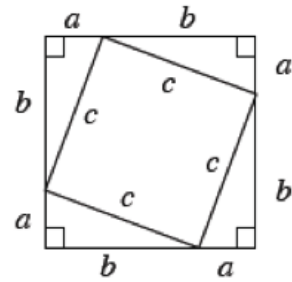


7-16. The area of the trapezoid at right is 56 cm^2 . What is h ? Show all work.



7-17. Line L is perpendicular to the line $6x - y = 7$ and passes through the point $(0, 6)$. Line M is parallel to the line $y = \frac{2}{3}x - 4$ and passes through the point $(-3, -1)$. Where do these lines intersect? Explain how you found your solution.

- 7-30. Examine the diagram at right. Find two equivalent expressions that represent the area of the *inner* square.



- 7-37. Examine the relationships in the diagrams below. For each one, write an equation and solve for the given variable(s). Show all work.

