

Classwork: Review + Extension Problems
Use loose leaf paper. Show work

Algebra Use the given information to find the unknown angle measures in the triangle.

22. The ratio of the angle measures of the acute angles in a right triangle is 1 : 2.
23. The measure of one angle of a triangle is 40. The measures of the other two angles are in a ratio of 3 : 4.
24. The measure of one angle of a triangle is 108. The measures of the other two angles are in a ratio of 1 : 5.

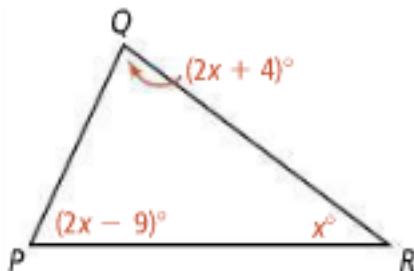
Think About a Plan The angle measures of $\triangle RST$ are represented by $2x$, $x + 14$, and $x - 38$. What are the angle measures of $\triangle RST$?

- How can you use the Triangle Angle-Sum Theorem to write an equation?
- How can you check your answer?

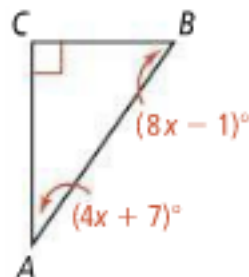
Reasoning What is the measure of each angle of an equiangular triangle? Explain.

Find the values of the variables and the measures of the angles.

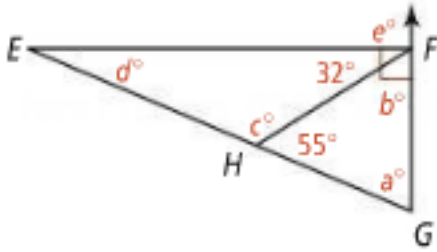
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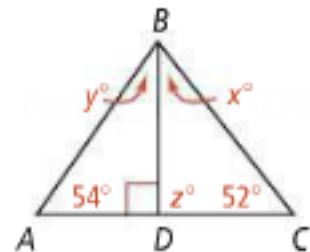
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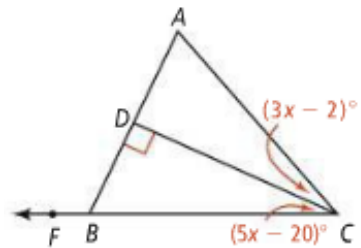
31.



32.



41. In the figure at the right, $\overline{CD} \perp \overline{AB}$ and \overline{CD} bisects $\angle ACB$. Find $m\angle DBF$.



42. If the remote interior angles of an exterior angle of a triangle are congruent, what can you conclude about the bisector of the exterior angle? Justify your answer.