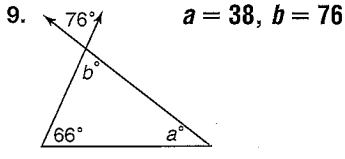
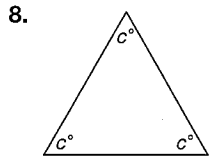
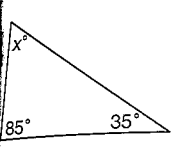


Choose the letter of the description that best matches each term.

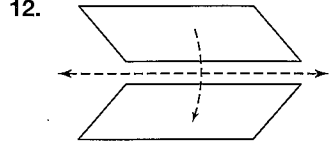
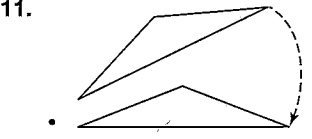
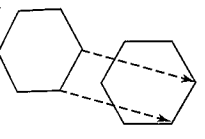
- scalene triangle **c**
- right triangle **a**
- isosceles triangle **d**
- acute triangle **e**
- equilateral triangle **b**
- equiangular triangle **f**

- a. has a right angle
- b. all sides are congruent
- c. no sides are congruent
- d. has a vertex angle
- e. all angles are acute
- f. all angles are congruent

Find the value of each variable.



Identify each motion as a translation, reflection, or rotation.

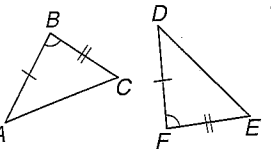


translation

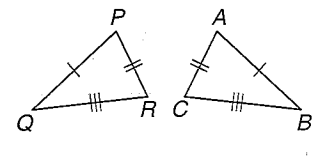
rotation

reflection

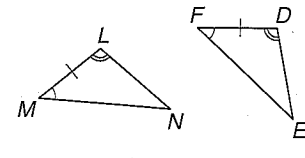
Complete each congruence statement.



14.



15.



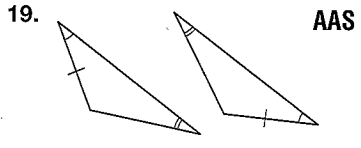
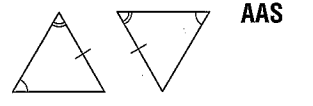
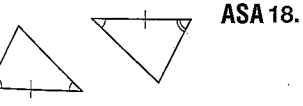
$\triangle ABC \cong \triangle \underline{\quad} \underline{\quad} DFE$

$\triangle \underline{\quad} \underline{\quad} \cong \triangle ABC \underline{\quad} PQR$

$\triangle \underline{\quad} \underline{\quad} \cong \triangle FDE \underline{\quad} MLN$

In $\triangle CDE$, identify the included angle for sides \overline{CD} and \overline{EC} . $\angle C$

Determine whether each pair of triangles is congruent by SSS, SAS, ASA, or AAS. If it is not possible to prove that they are congruent, write *not possible*.



Sports The sail for a sailboat looks like a right triangle. If the angle at the top of the sail measures 54° , what is the measure of the acute angle at the bottom? **36**

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5 NAME _____ DATE _____ PERIOD _____

Chapter 5 Test, Form 2B

Determine whether each statement is true or false. If false, draw a counterexample.

- A scalene triangle is never isosceles. **1. true**
- An isosceles triangle can be equilateral. **2. true**
- A scalene triangle is never right. **3. false**
- All equilateral triangles are acute. **4. true**

For Questions 5-6, find the value of each variable.

- 5. x = 50**
- 6. y = 68**

7. The measures of the angles of a triangle are x , $2x$, and $3x$. Find the measure of each angle. **7. 30, 60, 90**

Identify each motion as a translation, reflection, or rotation.

- 8. reflection**
- 9. translation**

For Questions 10-11, refer to the figure at the right. In the figure, $\triangle XYZ \rightarrow \triangle TSR$ by a rotation.

- Name the image of \overline{XY} . **10. \overline{TS}**
- Which angle corresponds to $\angle S$? **11. $\angle Y$**

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Chapter Test Bonus Question

Is there enough information in the figure to prove that the two triangles are congruent? Explain your reasoning.
Yes; the diagonal is a side of both triangles and is congruent to itself. The triangles are congruent by SSS.

