

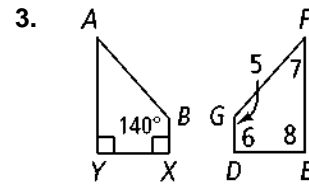
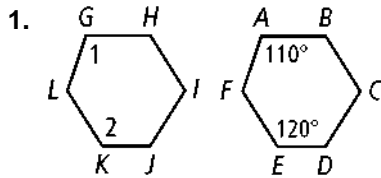
# 4-1

## Practice

Form G

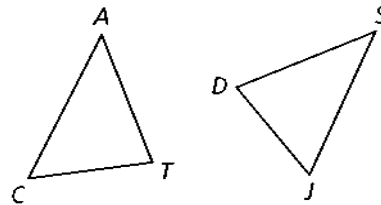
### Congruent Figures

Each pair of polygons is congruent. Find the measures of the numbered angles.



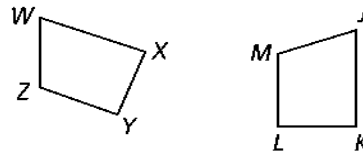
$\triangle CAT \cong \triangle JSD$ . List each of the following.

4. three pairs of congruent sides
5. three pairs of congruent angles



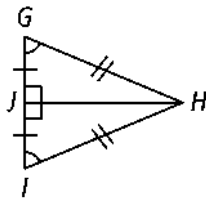
$WXYZ \cong JKLM$ . List each of the following.

6. four pairs of congruent sides
7. four pairs of congruent angles

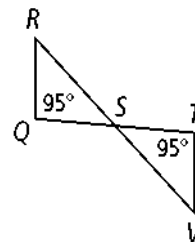


For Exercises 8 and 9, can you conclude that the triangles are congruent? Justify your answers.

8.  $\triangle GHJ$  and  $\triangle IHJ$

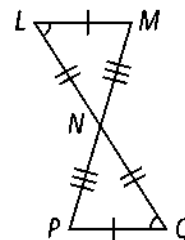


9.  $\triangle QRS$  and  $\triangle TVS$



10. **Developing Proof** Use the information given in the diagram. Give a reason that each statement is true.

- a.  $\angle L \cong \angle Q$
- b.  $\angle LNM \cong \angle QNP$
- c.  $\angle M \cong \angle P$
- d.  $\overline{LM} \cong \overline{QP}$ ,  $\overline{LN} \cong \overline{QN}$ ,  $\overline{MN} \cong \overline{PN}$
- e.  $\triangle LNM \cong \triangle QNP$



# 4-1

## Practice (continued)

Form G

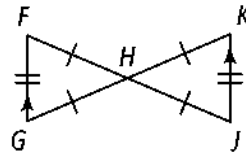
### Congruent Figures

For Exercises 11 and 12, can you conclude that the figures are congruent?

Justify your answers.

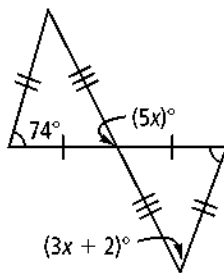
11.  $\triangle AEF$  and  $\triangle BCF$

12.  $\triangle FGH$  and  $\triangle JKH$

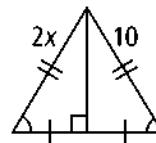


**Algebra** Find the values of the variables.

13.



14.



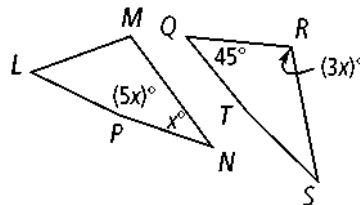
**Algebra**  $ABCD \cong FGHI$ . Find the measures of the given angles or lengths of the given sides.

15.  $m\angle B = 3y$ ,  $m\angle G = y + 50$

17.  $m\angle C = 5z + 20$ ,  $m\angle H = 6z + 10$

19.  $LMNP \cong QRST$ .

Find the value of  $x$ .



20. **Given:**  $\overline{BD}$  is the angle bisector of  $\angle ABC$ .  
 $\overline{BD}$  is the perpendicular bisector of  $\overline{AC}$ .

**Prove:**  $\triangle ADB \cong \triangle CDB$

