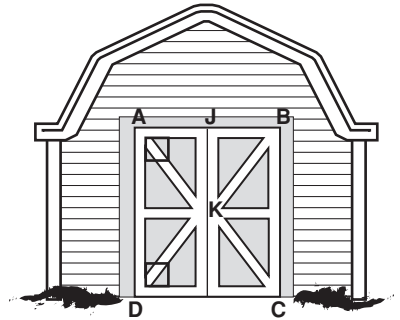


LESSON
4-4 **Problem Solving**
Triangle Congruence: SSS and SAS

Use the diagram for Exercises 1 and 2.

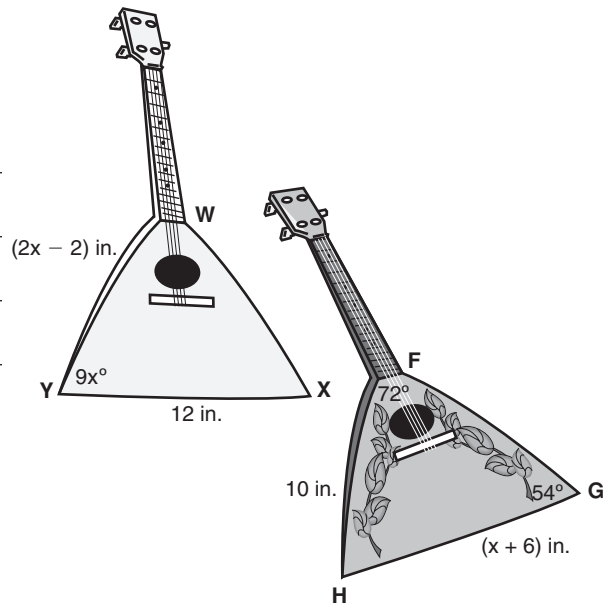
A shed door appears to be divided into congruent right triangles.



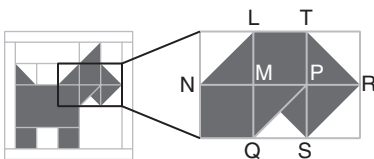
1. Suppose $\overline{AB} \cong \overline{CD}$. Use SAS to show $\triangle ABD \cong \triangle DCA$.

2. J is the midpoint of AB and $\overline{AK} \cong \overline{BK}$. Use SSS to explain why $\triangle AKJ \cong \triangle BKJ$.

3. A *balalaika* is a Russian stringed instrument. Show that the triangular parts of the two balalaikas are congruent for $x = 6$.



A quilt pattern of a dog is shown. Choose the best answer.



4. $ML = MP = MN = MQ = 1$ inch. Which statement is correct?

- A** $\triangle LMN \cong \triangle QMP$ by SAS.
B $\triangle LMN \cong \triangle QMP$ by SSS.
C $\triangle LMN \cong \triangle MQP$ by SAS.
D $\triangle LMN \cong \triangle MQP$ by SSS.

5. P is the midpoint of \overline{TS} and $TR = SR = 1.4$ inches. What can you conclude about $\triangle TRP$ and $\triangle SRP$?

- F** $\triangle TRP \cong \triangle SRP$ by SAS.
G $\triangle TRP \cong \triangle SRP$ by SSS.
H $\triangle TRP \cong \triangle SPR$ by SAS.
J $\triangle TRP \cong \triangle SPR$ by SSS.