

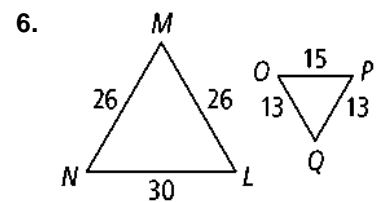
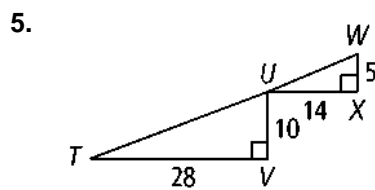
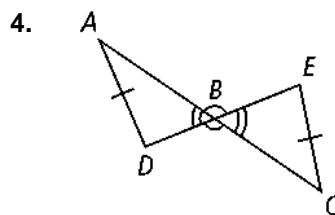
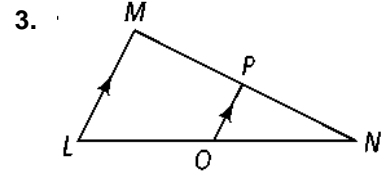
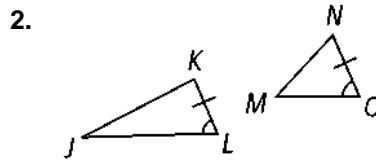
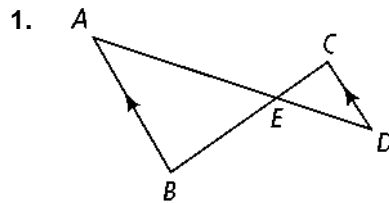
# 7-3

## Practice

Form G

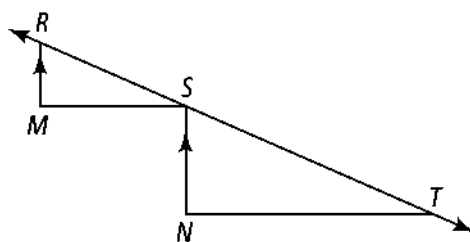
### Proving Triangles Similar

Determine whether the triangles are similar. If so, write a similarity statement and name the postulate or theorem you used. If not, explain.



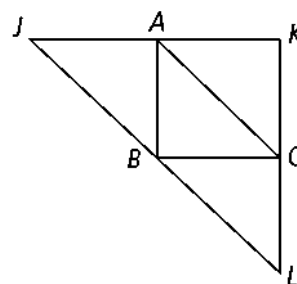
7. **Given:**  $\overline{RM} \parallel \overline{SN}$ ,  $\overline{RM} \perp \overline{MS}$ ,  
 $\overline{SN} \perp \overline{NT}$

**Prove:**  $\triangle RSM \sim \triangle STN$



8. **Given:** A bisects  $\overline{JK}$ , C bisects  $\overline{KL}$ , B bisects  $\overline{JL}$

**Prove:**  $\triangle JKL \sim \triangle CBA$



9. A 1.4-m tall child is standing next to a flagpole. The child's shadow is 1.2 m long. At the same time, the shadow of the flagpole is 7.5 m long. How tall is the flagpole?

# 7-3

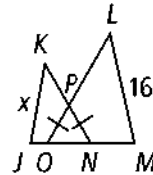
## Practice (continued)

Form G

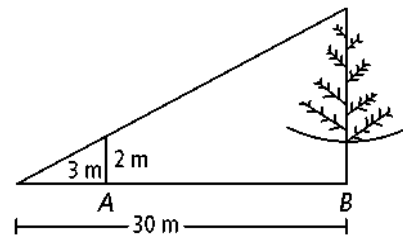
### Proving Triangles Similar

Explain why the triangles are similar. Then find the value of  $x$ .

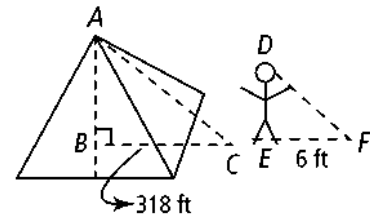
10.  $\overline{OP} \cong \overline{NP}$ ,  $KN = 15$ ,  
 $LO = 20$ ,  $JN = 9$ ,  
 $MO = 12$



12. A stick 2 m long is placed vertically at point  $B$ . The top of the stick is in line with the top of a tree as seen from point  $A$ , which is 3 m from the stick and 30 m from the tree. How tall is the tree?



13. Thales was an ancient philosopher familiar with similar triangles. One story about him says that he found the height of a pyramid by measuring its shadow and his own shadow at the same time. If the person is 5-ft tall, what is the height of the pyramid in the drawing?



Identify the similar triangles in each figure. Explain.

