

# HW-31

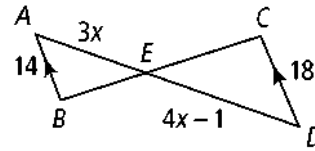
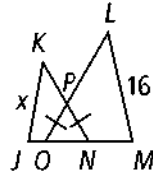
## Practice (continued)

### Proving Triangles Similar

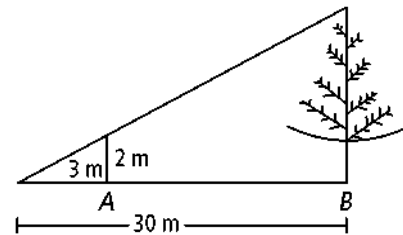
Form G

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

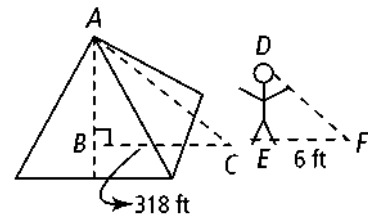
10.  $\overline{OP} \cong \overline{NP}$ ,  $KN = 15$ ,  
 $LO = 20$ ,  $JN = 9$ ,  
 $MO = 12$



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.

