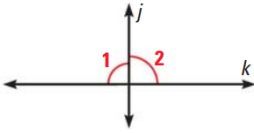


Unit 3- Worksheet #3 Worksheet: Prove Lines Perpendicular

Write the theorem that justifies the statement.

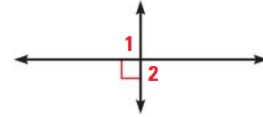
1.  $j \perp k$



2.  $\angle 4$  and  $\angle 5$  are complementary

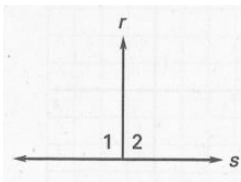


3.  $\angle 1$  and  $\angle 2$  are right angles

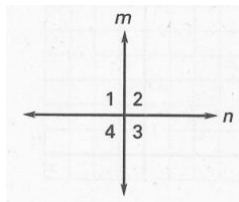


What can you conclude from the given information? **Justify your conclusion.**

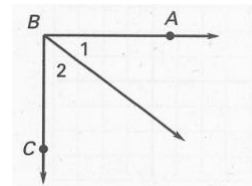
4.  $\angle 1 \cong \angle 2$



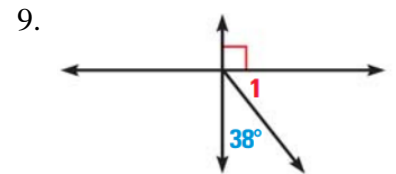
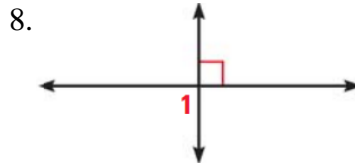
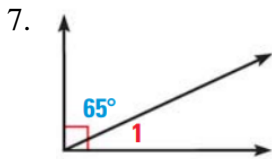
5.  $n \perp m$



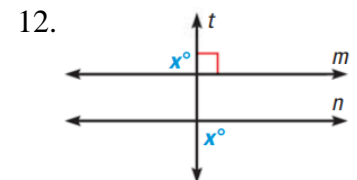
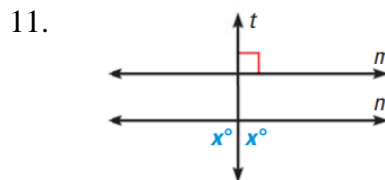
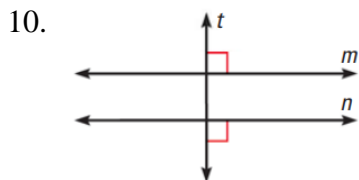
6.  $\overrightarrow{BA} \perp \overrightarrow{BC}$



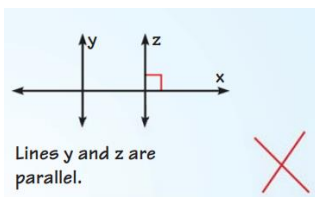
Find the  $m\angle 1$ .



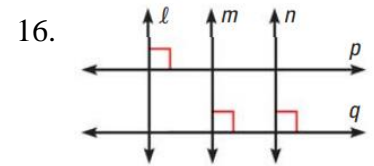
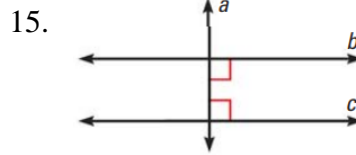
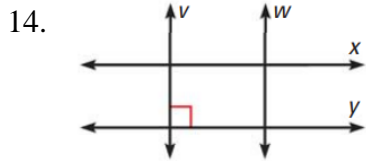
Write the theorem that justifies the statement:  $m \parallel n$ .



13. Explain why the statement about the figure is incorrect.



Determine which lines, if any, must be parallel. **Justify your conclusion.**

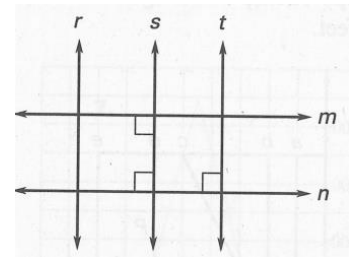


Use the diagram to answer the following. **Justify your conclusion.**

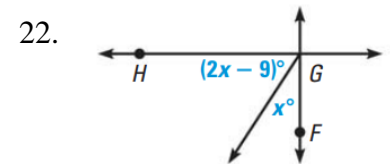
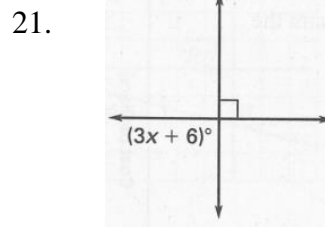
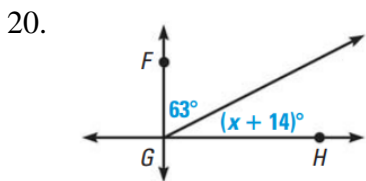
17. Is  $r \parallel s$ ?

18. Is  $m \parallel n$ ?

19. Is  $t \parallel s$ ?



In the diagram,  $\overrightarrow{FG} \perp \overrightarrow{GH}$ . Find the value of  $x$ . **Show your work.**



23. Find all the unknown angle measures in the diagram at the right.

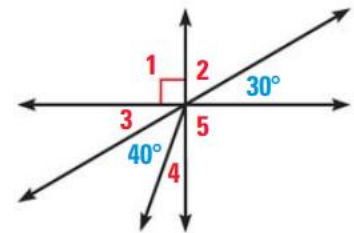
$m\angle 1 =$

$m\angle 2 =$

$m\angle 3 =$

$m\angle 4 =$

$m\angle 5 =$



24. Find all the unknown angle measures in the diagram at the right.

$m\angle 1 =$

$m\angle 2 =$

$m\angle 3 =$

$m\angle 4 =$

$m\angle 5 =$

$m\angle 6 =$

