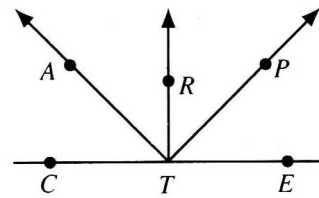


Proving Theorems

For use after Section 2-3

Name the definition, postulate, or theorem that justifies the statement about the diagram.



Exs. 1-9

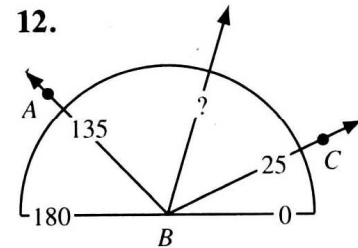
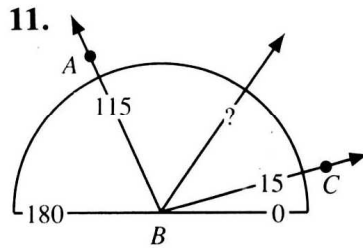
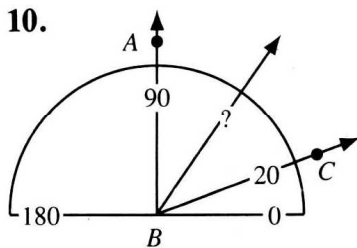
1. If T is the midpoint of \overline{CE} , then $CT = TE$.

2. If \overrightarrow{TP} is the bisector of $\angle RTE$, then $m\angle RTP = m\angle PTE$.

3. If T is the midpoint of \overline{CE} , then $TE = \frac{1}{2}CE$. _____
4. If \overrightarrow{TP} is the bisector of $\angle RTE$, then $m\angle PTE = \frac{1}{2}m\angle RTE$.

5. $CT = \frac{1}{2}CE$ if T is the midpoint of \overline{CE} . _____
6. $CT + TE = CE$ _____
7. $m\angle CTA + m\angle ATE = 180$ _____
8. $m\angle ATR + m\angle RTP = m\angle ATP$ _____
9. If \overrightarrow{TP} bisects \overline{CE} , then T is the midpoint of \overline{CE} . _____

Write the number that is paired with the bisector of $\angle ABC$.



The coordinates of C and D are -1 and 17 , respectively. M is the midpoint of \overline{CD} and N is the midpoint of \overline{CM} . Find each of the following.

13. The length of \overline{CM} _____
14. The coordinate of M _____
15. The length of \overline{CN} _____
16. The coordinate of N _____
17. List four kinds of reasons that can be used to justify statements in a proof.
 1. _____
 2. _____
 3. _____
 4. _____