

Write the Definition:

1. Perpendicular lines: _____

2. Midpoint: _____

3. Segment Bisector: _____

4. Angle Bisector: _____

Select one term from above and re-write its definition as a bi-conditional (...if and only if...)

5. _____

Draw a picture that depicts the given fact and then circle the conclusion that is true.

6. Known Fact: \overline{GH} bisects $\angle AGT$

Conclusion A: $\angle AGT \cong \angle AGH$

Conclusion B: $\angle TGH \cong \angle AGH$

7. Known Fact: P is the midpoint of \overline{AT} .

Conclusion A: $\overline{AP} \cong \overline{PT}$

Conclusion B: $\overline{AT} \cong \overline{AP}$

For each pair of statements, the first statement is a Theorem, Definition, or Postulate and the second statement is a fact. Write the true conclusion that can be drawn.

8. Theorem: If two angles are right, then they are congruent.

Fact: $\angle A$ and $\angle B$ are right angles.

Conclusion: _____

9. Definition: A segment bisector goes through the midpoint of another segment.

Fact: \overline{MR} bisects \overline{VG} at P.

Conclusion: _____

For each pair of statements, the first statement is a fact and the second statement is a true conclusion. Write the theorem, definition, or postulate that is the reason for the conclusion.

10. Fact: M is the midpoint of \overline{HG}

Conclusion: $\overline{HM} \cong \overline{GM}$

11. Fact: \overline{PR} bisects \overline{ST} at F.
 Conclusion: F is the midpoint of \overline{ST} .

Use the **Transitive Property of Equality** to write a conclusion based on the two given facts.

12. Fact: $\angle A \cong \angle M$
 Fact: $\angle R \cong \angle M$

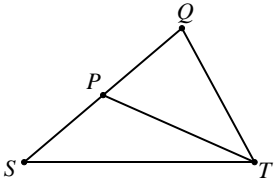
Conclusion: _____

13. Fact: $\overline{BT} \cong \overline{HK}$
 Fact: $\overline{CD} \cong \overline{BT}$

Conclusion: _____

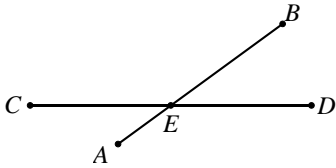
For the given fact(s), write the conclusion(s) and reason(s) in Two-Column format.
 (Include the givens as statements in these questions).

14. Given: \overline{TP} bisects $\angle STQ$



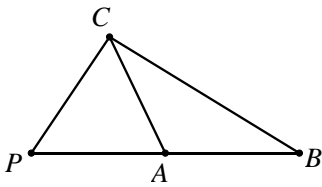
Statements	Reasons
1. _____	
2. _____	

15. Given: \overline{AB} bisects \overline{CD} at E.



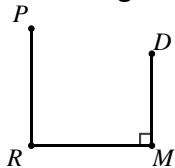
Statements	Reasons
1. _____	
2. _____	
3. _____	

16. Given: A is the midpoint of \overline{PB}
 $\overline{AP} \cong \overline{PC}$



Statements	Reasons
1. _____	
2. _____	
3. _____	
4. _____	

17. Given: $\overline{PR} \perp \overline{MR}$
 $\angle M$ is a right angle.



Statements	Reasons
1. _____	
2. _____	
3. _____	
4. _____	