

4-7

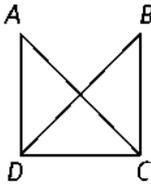
Practice

Form G

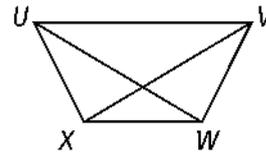
Congruence in Overlapping Triangles

In each diagram in Exercises 7–12 the given triangles are congruent. Identify their common side or angle.

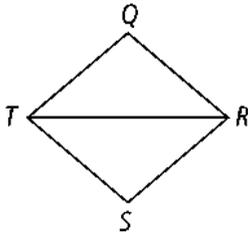
7. $\triangle ADC$ and $\triangle BCD$



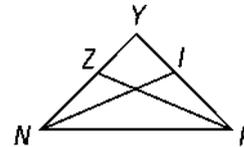
9. $\triangle UXV$ and $\triangle VWU$



10. $\triangle QTR$ and $\triangle SRT$



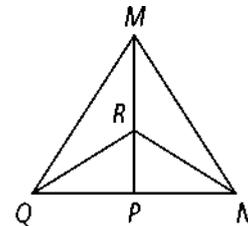
12. $\triangle YNI$ and $\triangle YPZ$



15. Write a paragraph proof.

Given: P is the midpoint of \overline{QN} , $\overline{MP} \perp \overline{QN}$

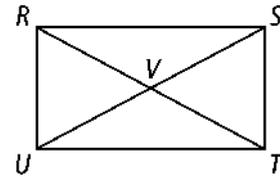
Prove: $\triangle MRQ \cong \triangle MRN$



14. Complete the following proof.

Given: $\overline{RU} \cong \overline{TS}$, $\angle RUT$ and $\angle UTS$ are right angles, V is the midpoint of US .

Prove: $\square RVU \cong \square TVS$



Statements	Reasons
1) $\overline{RU} \cong \overline{TS}$, $\angle RUT$ and $\angle UTS$ are right angles, V is the midpoint of \overline{US} .	1) <u>?</u>
2) $\overline{UT} \cong \overline{TU}$	2) <u>?</u>
3) <u>?</u>	3) All right angles are congruent
4) <u>?</u>	4) SAS
5) $\angle RUS$ and $\angle SUT$ are complementary angles.	5) <u>?</u>
6) <u>?</u>	6) Definition of complementary angles
7) $\angle SUT \cong \angle RTU$	7) <u>?</u>
8) $\angle RUS \cong \angle STR$	8) <u>?</u>
9) <u>?</u>	9) Definition of midpoint
10) $\angle RVU \cong \angle TVS$	10) <u>?</u>
11) $\square RVU \cong \square TVS$	11) <u>?</u>