

1) $\triangle PQR \cong \triangle STU$. List all pairs of congruent sides and angles of the figure.

_____ \cong _____ _____ \cong _____
 _____ \cong _____ _____ \cong _____
 _____ \cong _____ _____ \cong _____

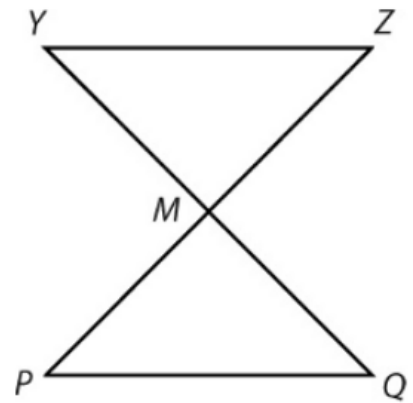
For problems 2-7, complete each statement.

- 2) If $\triangle PQR \cong \triangle STU$ and $m\angle P = 50^\circ$, then $m\angle S =$ _____
- 3) If $\triangle LMN \cong \triangle QRZ$ and $MN = 6$ feet, then $RZ =$ _____
- 4) If quadrilateral $ABCD \cong$ quadrilateral $UVWX$ and $BC = 10$ centimeters, then $VW =$ _____
- 5) If rectangle $EFGH \cong$ rectangle $JKLM$ $EF = 7$ inches, then _____ = 7 inches
- 6) If pentagon $EFGHI \cong$ pentagon $TUVWX$ and $m\angle G = 70^\circ$, then $m\angle$ _____ = 70°
- 7) If quadrilateral $BCDE \cong$ quadrilateral $STUV$ and $BE = 12$ meters, then _____ = 12 meters

For problems 8-11, fill in the missing statements or reasons for the proof.

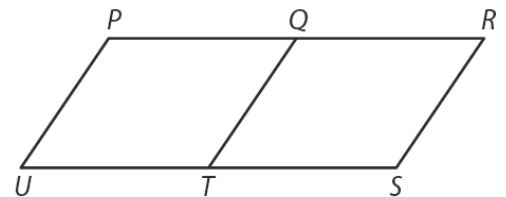
- 8) Given: $\triangle MYZ \cong \triangle MQP$
 Prove: M is the midpoint of \overline{YQ}

Statements	Reasons
1. $\triangle MYZ \cong \triangle MQP$	1.
2.	2. Corresponding parts of congruent figures are congruent.
3. M is the midpoint of \overline{YQ}	3.



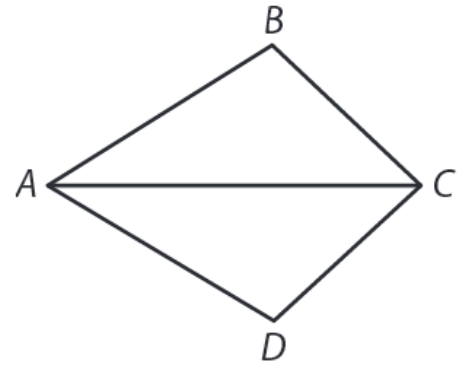
- 9) Given: Quadrilateral $PQTU \cong$ Quadrilateral $QRST$
 Prove: \overline{QT} bisects \overline{PR}

Statements	Reasons
1. Quadrilateral $PQTU \cong$ Quadrilateral $QRST$	1.
2. $\overline{PQ} \cong \overline{QR}$	2.
3. Q is the midpoint of \overline{PR}	3.
4. \overline{QT} bisects \overline{PR}	4.



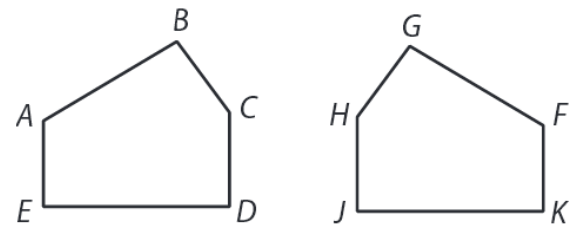
- 10) Given: $\triangle ABC \cong \triangle ADC$
 Prove: \overline{AC} bisects $\angle BAD$ and \overline{AC} bisects $\angle BCD$

Statements	Reasons
1.	1. Given
2.	2. Corresponding parts of congruent figures are congruent.
3.	3. Corresponding parts of congruent figures are congruent.
4.	4. Definition of angle bisector



- 11) Given: $Pentagon ABCDE \cong Pentagon FGHIK$; $\angle D \cong \angle E$
 Prove: $\angle D \cong \angle K$

Statements	Reasons
1.	1.
2.	2. Given
3. $\angle E \cong \angle K$	3. Corresponding parts of congruent figures are congruent.
4.	4. Transitive Property of Equality



- 12) $\triangle MNP \cong \triangle QRS$. Determine whether each statement about the triangles is true or false. (Show all work)

- a) $\triangle QRS$ is isosceles
- b) \overline{MP} is longer than \overline{MN}
- c) $m\angle P = 52^\circ$
- d) The perimeter of $\triangle QRS$ is 120 mm.
- e) $\angle M \cong \angle Q$

