

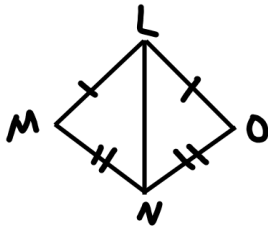
# Congruent Triangles

# 2 Column Proofs

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Period: \_\_\_\_ Day \_\_\_\_

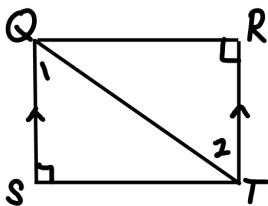
**Matching: Use the choices listed at the bottom in the box for problems #1 – 4**

Problem 1:



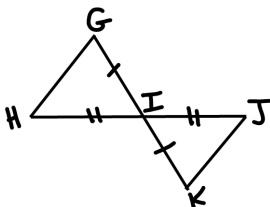
Statement	Reason
1. $\overline{LM} \cong \overline{LO}$	1.
2. $\overline{MN} \cong \overline{ON}$	2.
3. $\overline{LN} \cong \overline{LN}$	3.
4. $\triangle LMN \cong \triangle LON$	4.

Problem 2:



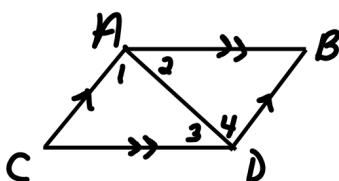
Statement	Reason
1. $\overline{QS} \parallel \overline{RT}$	1.
2. $\angle R \cong \angle S$	2.
3. $\angle 1 \cong \angle 2$	3.
4. $\overline{QT} \cong \overline{QT}$	4.
5. $\triangle QST \cong \triangle TRQ$	5.

Problem 3:



Statement	Reason
1. $\overline{GI} \cong \overline{KI}$	1.
2. $\overline{HI} \cong \overline{IJ}$	2.
3. $\angle GIH \cong \angle KIJ$	3.
4. $\triangle GIH \cong \triangle KIJ$	4.

Problem 4:



Statement	Reason
1. $\overline{AC} \parallel \overline{BD}, \overline{AB} \parallel \overline{CD}$	1.
2. $\angle 1 \cong \angle 4, \angle 2 \cong \angle 3$	2.
3. $\overline{AD} \cong \overline{AD}$	3.
4. $\triangle ADC \cong \triangle DAB$	4.

**Choices for problems #1 – 4 (some will be used more than once):**

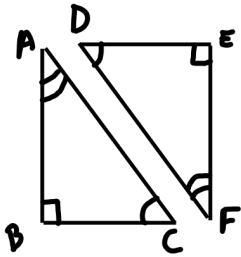
- AAS
- ASA
- Alternate Interior Angles are  $\cong$
- Given
- Reflexive Property
- SAS
- SSS
- Vertical Angles are  $\cong$

# Congruent Triangles

# 2 Column Proofs

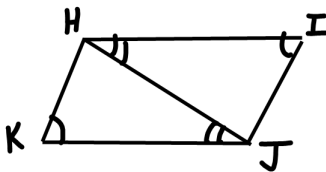
Fill in the blank proofs:

Problem 5:



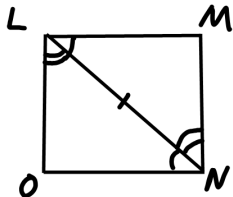
Statement	Reason
1. $\angle A \cong \angle F$	1. Given
2. $\angle B \cong \angle E$	2.
3. $\angle C \cong \angle \underline{\hspace{1cm}}$	3. Given
4. $\triangle ABC \cong \triangle FED$	4. ★

Problem 6:



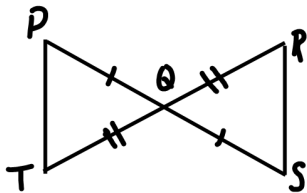
Statement	Reason
1. $\angle I \cong \angle K$	1.
2. $\angle IHJ \cong \angle KJH$	2.
3. $\overline{HJ} \cong \overline{HJ}$	3.
4. $\triangle HJK \cong \triangle JHI$	4.

Problem 7:



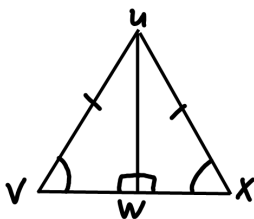
Statement	Reason
1. $\angle MLN \cong \angle ONL$	1.
2. $\angle OLN \cong \angle \underline{\hspace{1cm}}$	2. Given
3.	3. Reflexive Property
4. $\triangle LNO \cong \triangle NLM$	4.

Problem 8:



Statement	Reason
1. $\overline{PQ} \cong \overline{QS}$	1.
2.	2. Given
3. $\angle PQT \cong \angle RQS$	3.
4. $\triangle PQT \cong \triangle RQS$	4.

Problem 9:

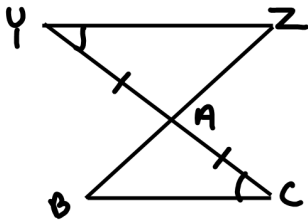


Statement	Reason
1. $\overline{UV} \cong \overline{UX}$	1.
2.	2. Right Angle Congruence
3.	3. Reflexive Property
4. $\angle V \cong \angle X$	4.
5. $\triangle UWV \cong \triangle UWX$	5.

## Congruent Triangles

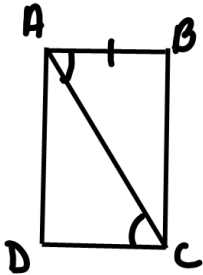
## 2 Column Proofs

Problem 10:



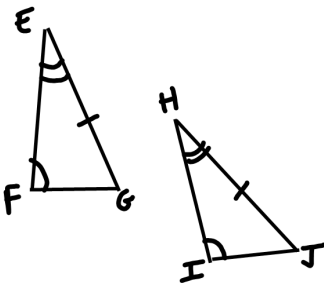
Statement	Reason
1. $\angle Y \cong \angle C$	1.
2.	2. Given
3.	3. Vertical Angles
4. $\triangle YZA \cong \triangle CAB$	4.

Problem 11:



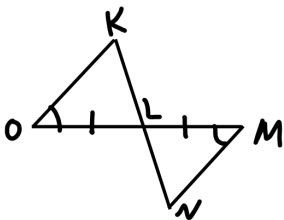
Statement	Reason
1. $\angle BAC \cong \angle DCA$	1. Given
2.	2. Given
3.	3.
4. $\triangle ABC \cong \triangle CDA$	4.

Problem 12:



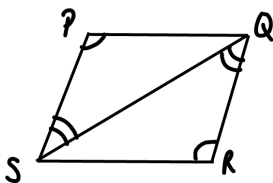
Statement	Reason
1. $\angle F \cong \angle I$	1.
2. $\angle \_ \cong \angle \_$	2.
3.	3.
4. $\triangle EFG \cong \triangle HIJ$	4.

Problem 13:



Statement	Reason
1. $\angle \_ \cong \angle M$	1. Given
2.	2. Given
3. $\angle KLO \cong \angle \_$	3.
4. $\triangle KLO \cong \triangle NLM$	4.
5. $\angle K \cong \angle N$	5. CPCTC

Problem 14:

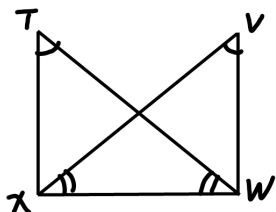


Statement	Reason
1. $\angle P \cong \angle \_$	1.
2.	2.
3.	3. Reflexive
4. $\triangle PQS \cong \triangle RSQ$	4.

# Congruent Triangles

# 2 Column Proofs

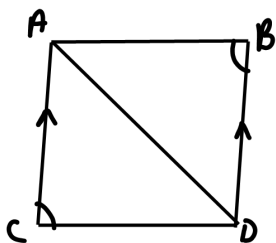
Problem 15:



Statement	Reason
1. $\angle T \cong \angle \underline{\quad}$	1. Given
2.	2. Given
3.	3. Reflexive Property
4. $\Delta TWX \cong \Delta VXW$	4.

★Hint: Draw two separate triangles.★

Problem 16:



Statement	Reason
1. $\overline{AC} \parallel \overline{BD}$	1.
2.	2. Given
3. $\angle CAD \cong \angle BDA$	3.
4.	4. Reflexive Property
5. $\Delta ACD \cong \Delta \underline{\quad}$	5.