Name : _____

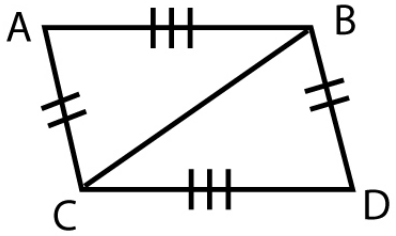
Score : _____ Date : _____

MATH MONKS

Congruent Triangles Worksheet

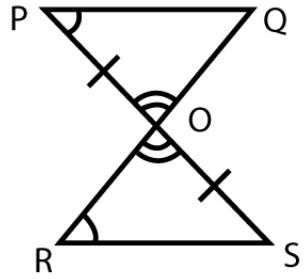
Using the given postulate, state which parts of a pair of triangles are congruent

1 SSS



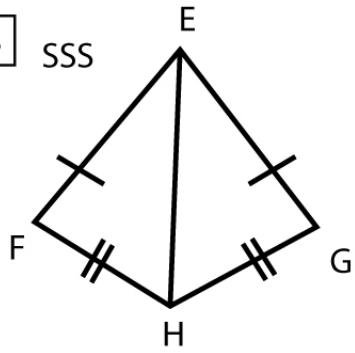
_____ ≅ _____

2 AAS



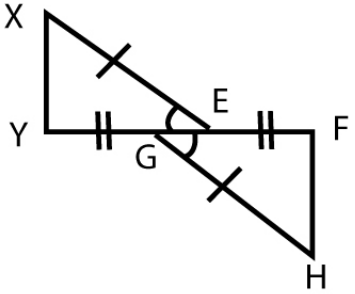
_____ ≅ _____

3 SSS



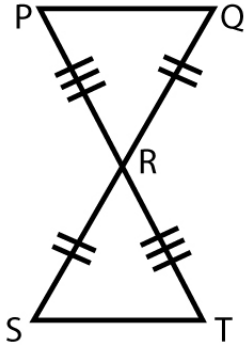
_____ ≅ _____

4 SAS



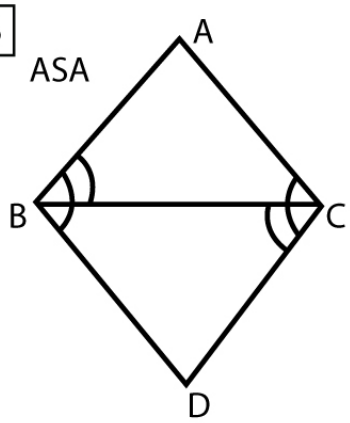
_____ ≅ _____

5 SAS



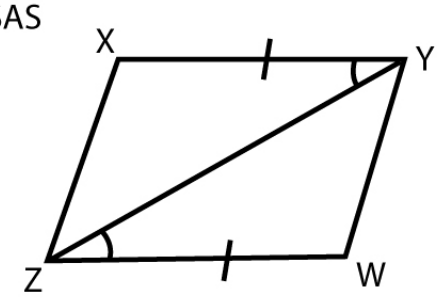
_____ ≅ _____

6 ASA



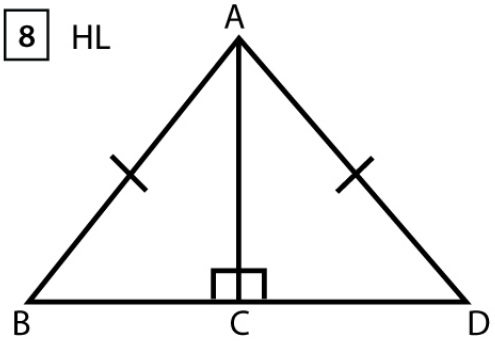
_____ ≅ _____

7 SAS



_____ ≅ _____

8 HL



_____ ≅ _____

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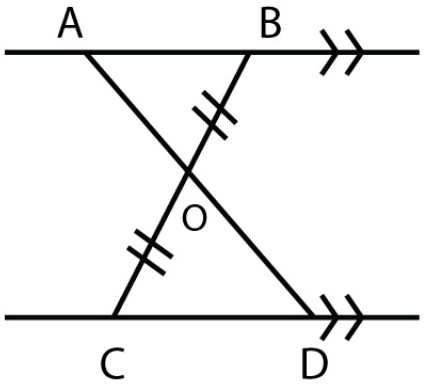
Score : _____ Date : _____

MATH MONKS

Parallel lines and Congruent Triangles Worksheet

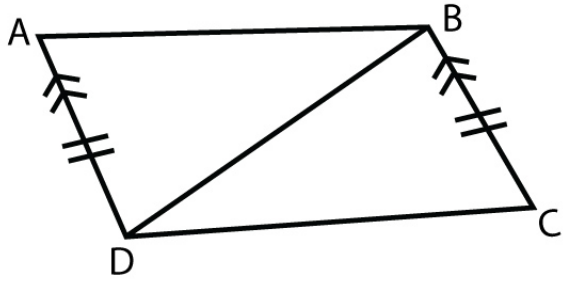
1 Prove which of the following triangles are congruent by filling in the missing blanks



Given $\overline{CO} \cong \overline{BO}$ and $\overleftrightarrow{AB} \parallel \overleftrightarrow{CD}$

	Statements	Reasons
1.	$CO \cong BO$	
2.	$\overleftrightarrow{AB} \parallel \overleftrightarrow{CD}$	
3.		
4.		
5.	$\Delta ABO \cong \Delta DCO$	

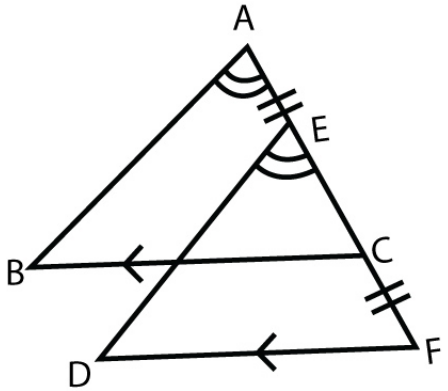
2



Given $AD \cong \overline{CB}$ and $\overleftrightarrow{AD} \parallel \overleftrightarrow{CB}$

	Statements	Reasons
1.	$\overline{AD} \cong \overline{CB}$	
2.	$\overleftrightarrow{AD} \parallel \overleftrightarrow{CB}$	
3.	$\measuredangle ADB \cong \measuredangle CBD$	
4.		
5.	$\Delta DAB \cong \Delta BCD$	

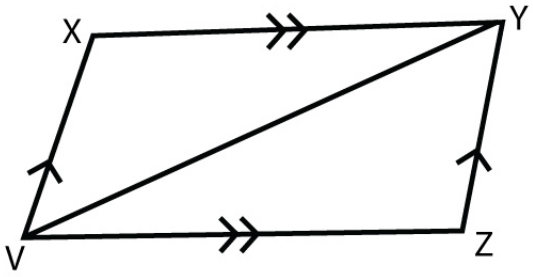
3



Given $AE \cong CF$, $\measuredangle BAC \cong \angle DEF$ and $\overleftrightarrow{BC} \parallel \overleftrightarrow{DF}$

	Statements	Reasons
1.	$AE \cong CF$	
2.	$\overleftrightarrow{BC} \parallel \overleftrightarrow{DF}$	
3.	$\measuredangle BAC \cong \angle DEF$	
4.		
5.	$\Delta BAC \cong \Delta DEF$	

4



Given $\overleftrightarrow{XY} \parallel \overleftrightarrow{ZV}$ and $\overleftrightarrow{XV} \parallel YZ$

	Statements	Reasons
1.	$\overleftrightarrow{XY} \parallel \overleftrightarrow{ZV}$	
2.	$\overleftrightarrow{XV} \parallel \overleftrightarrow{YZ}$	
3.		
4.		
5.	$\Delta XYV \cong \Delta ZVY$	

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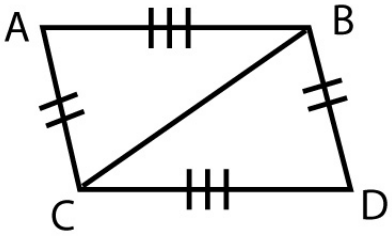
MATH MONKS

Congruent Triangles Worksheet

Answers

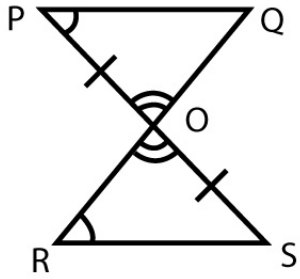
1 SSS



AC = BD, AB = CD, CB = CB

△ACB ≅ △DBC

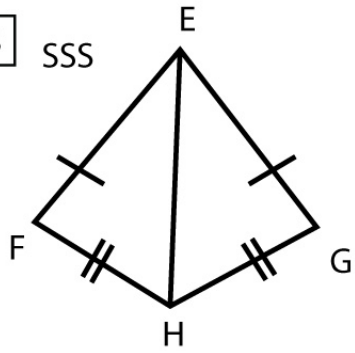
2 AAS



∠OPQ = ∠ORS, OP = OS, ∠POQ = ∠SOR

△POQ ≅ △ROS

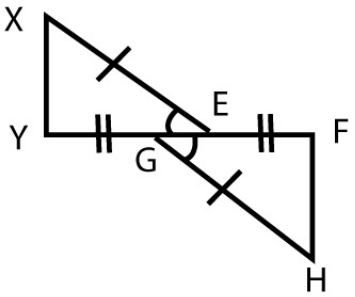
3 SSS



EF = EG, FH = GH, EH = EH

△EFH ≅ △FGH

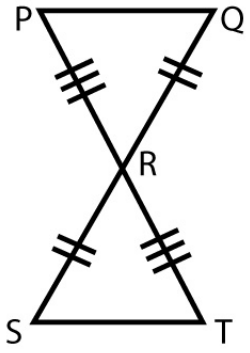
4 SAS



∠XYE = ∠HFG, ∠XEY = ∠HGF, XE = HG

△XYE ≅ △HFG

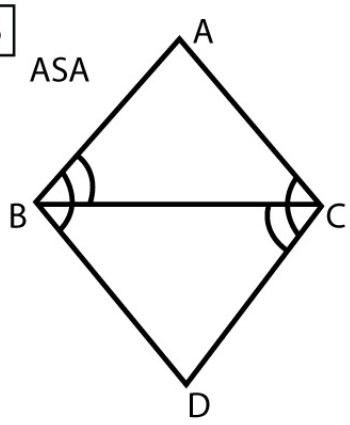
5 SAS



SR = QR, ∠PRQ = ∠TRS, PR = TR

△PRQ ≅ △TRS

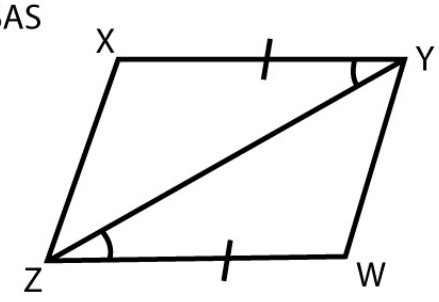
6 ASA



∠ABC = ∠DCB, BC = BC, ∠DBC = ∠ACB

△ABC ≅ △DCB

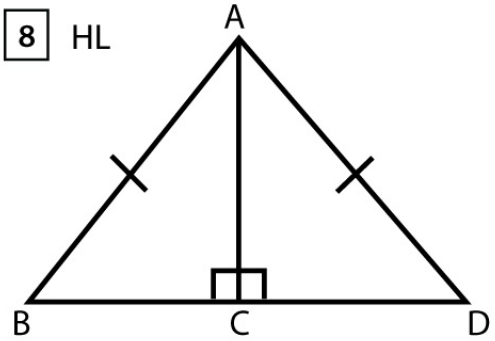
7 SAS



XY = ZW, ∠XYZ = ∠WZY, ZY = ZY

△XZY ≅ △WYZ

8 HL



∠ACB = ∠ACD = 90°, AC = AC

△ABC ≅ △ADC