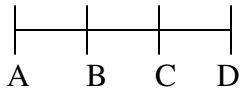


Proofs Chapter 2

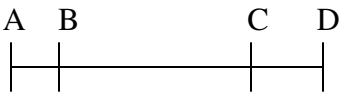
1.



Given : $\overline{AB} \cong \overline{CD}$

Prove : $\overline{AC} \cong \overline{BD}$

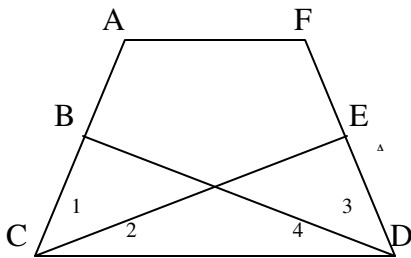
2.



Given: $\overline{AC} \cong \overline{BD}$

Prove : $\overline{AB} \cong \overline{CD}$

3.

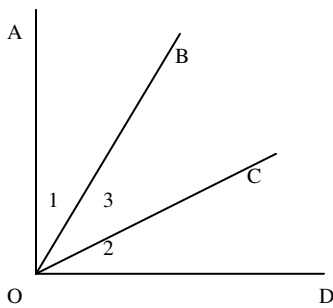


Given: $\angle 1 \cong \angle 4$

$\angle 2 \cong \angle 3$

Prove: $\angle ACD \cong \angle FDC$

4.



Given : $\angle 1 \cong \angle 2$

Prove : $\angle AOC \cong \angle BOD$

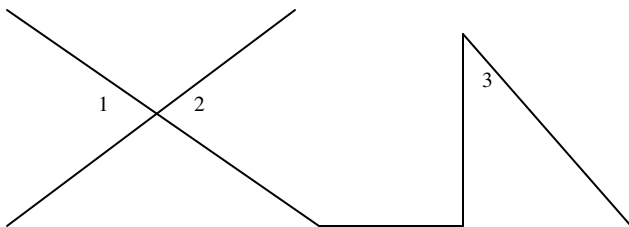
4 a) same picture

Given: $\overline{BO}$ bisects $\angle AOC$

$\angle 3 \cong \angle 2$

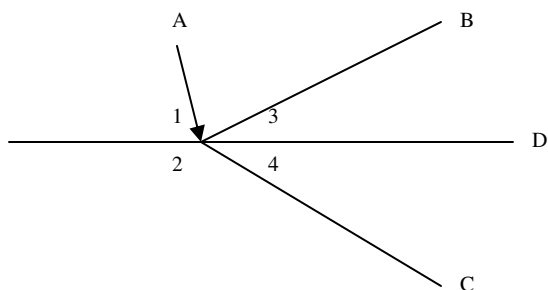
Prove : $\angle 1 \cong \angle 4$

5.



Given: $\angle 1 \cong \angle 3$
 Prove: $\angle 2 \cong \angle 3$

6.

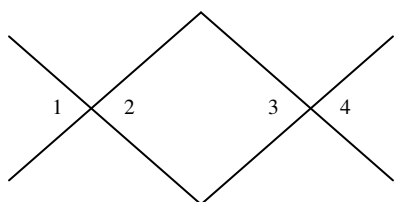


Given : $\angle 1 \cong \angle 2$
 Prove: $\angle 3 \cong \angle 4$

6 a) Same picture

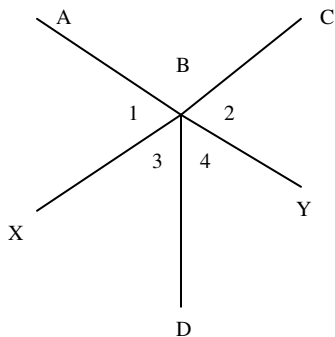
Given: AD bisects $\angle BAC$
 Prove: $\angle 1 \cong \angle 2$

7.



Given: $\angle 1 \cong \angle 3$
 Prove: $\angle 2 \cong \angle 4$

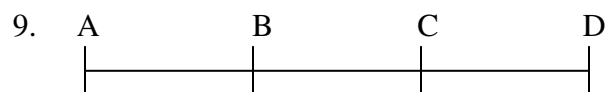
8.



Given: $\angle ABD \cong \angle CBD$
 Prove: $\angle 3 \cong \angle 4$

8a) Same picture as 8.

Given: $\overline{BD}$ bisects $\angle XBY$
Prove: $\angle ABD \cong \angle CBD$



Given: $\overline{AC} \cong \overline{BD}$
Prove: $\overline{AB} \cong \overline{CD}$

9 a) Same picture

Given: $\overline{AB} \cong \overline{CD}$
Prove: $\overline{AC} \cong \overline{BD}$

9 b). Same Picture

Given: C is midpoint of BD
 $\overline{AB} \cong \overline{CD}$
Prove: B is midpoint of AC