



**Given:**

- Segment  $AD$  bisects segment  $BC$ .
- Segment  $BC$  bisects segment  $AD$ .

**Prove:**

- $\triangle ABM$  and  $\triangle DCM$  are congruent.

Statement	Reason
1. Segment $AD$ bisects segment $BC$ .	1. Given.
2. Segments $AM$ and $MD$ are congruent.	2. When a segment is bisected, the two resulting segments are congruent.
3. Segment $BC$ bisects segment $AD$ .	3. Given.
4. Segments $BM$ and $CM$ are congruent.	4. When a segment is bisected, the two resulting segments are congruent.
5. $\angle AMB$ and $\angle DMC$ are congruent.	5. Verticle angles are congruent.
6. $\triangle ABM$ and $\triangle DCM$ are congruent.	6. SAS postulate (2, 4, 5).