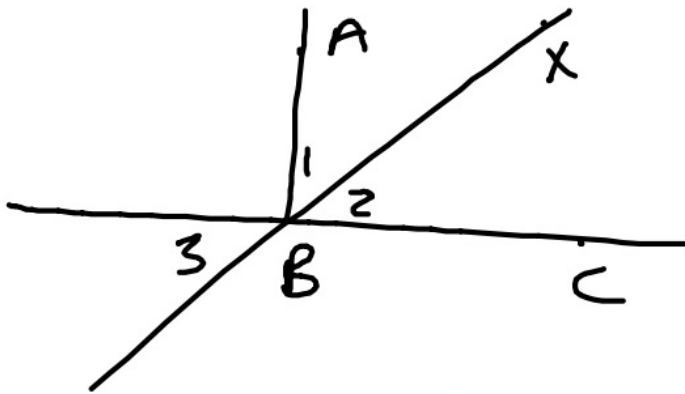


5-10-18 5th Geo

Given: \vec{BX} bisects $\angle ABC$

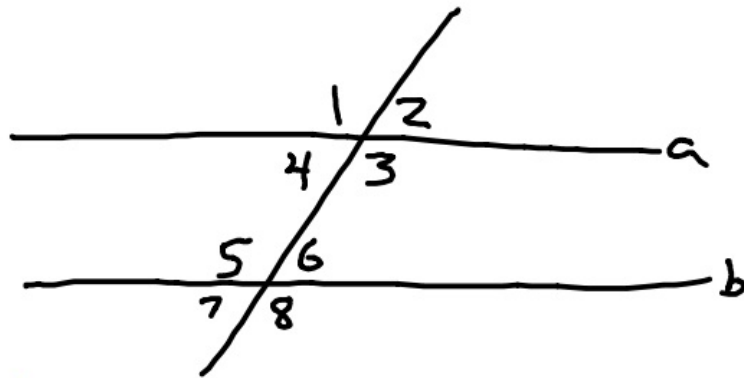
Prove: $\angle 1 = \angle 3$



Statement	Justification
① \vec{BX} bisects $\angle ABC$	① Given
② $\angle 1 = \angle 2$	② Def. of bisector
③ $\angle 2 = \angle 3$	③ Vertical \angle 's are =.
④ $\angle 1 = \angle 3$	④ Transitive (lines 2 & 3)

② Given: lines a & b are parallel.

Prove: $\angle 1 = \angle 8$

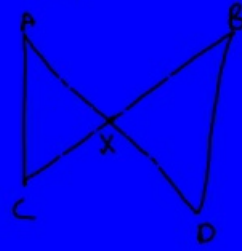


One way

Statement	Justification
① Lines a & b are parallel	① Given
② $\angle 1 = \angle 5$	② Corresponding \angle 's are = if lines are parallel.
③ $\angle 5 = \angle 8$	③ Vertical \angle 's are =.
④ $\angle 1 = \angle 8$	④ Transitive

③ Given: X is the midpoint
of \overline{BC} and \overline{AD} .

Prove: $AC = BD$



#

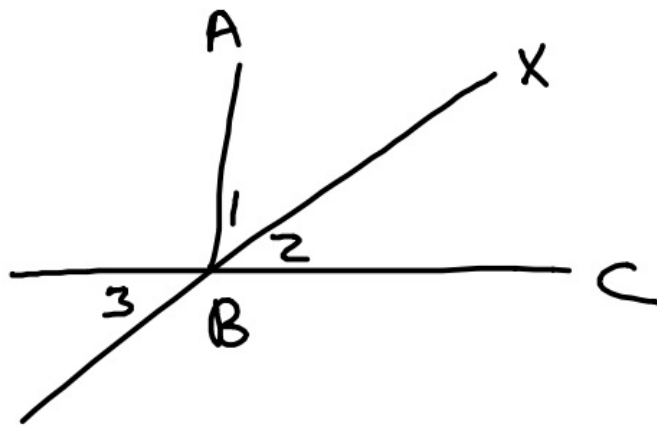
KAMI 2



5-10-18 6th Geo

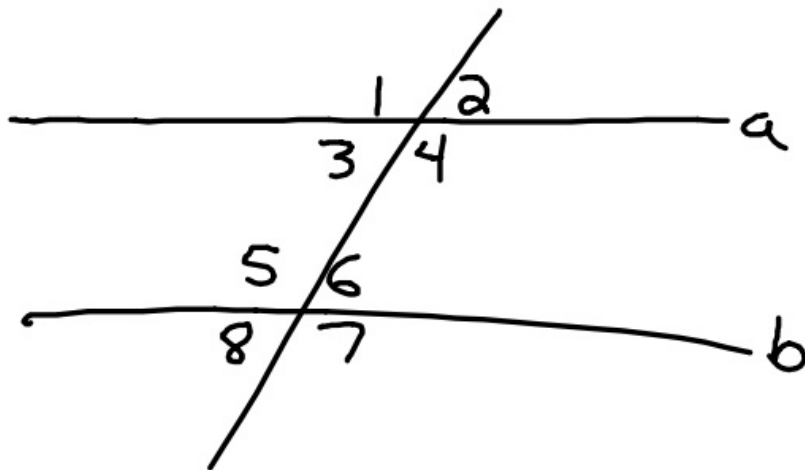
Given: \overline{BX} bisects $\angle ABC$

Prove: $\angle 1 = \angle 3$



Statement	Justification
① \overline{BX} bisects $\angle ABC$	① Given
② $\angle 1 = \angle 2$	② Def. of bisection
③ $\angle 2 = \angle 3$	③ Vertical \angle 's are =
④ $\angle 1 = \angle 3$	④ Transitive Prop.

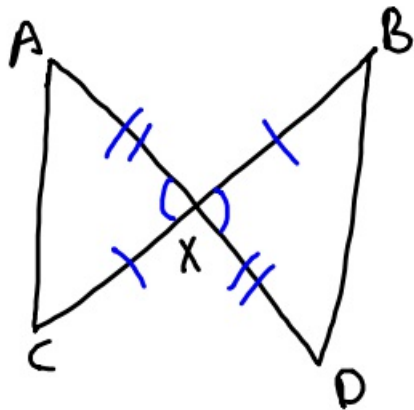
② Given: Lines a & b are parallel
 Prove: $\angle 2 = \angle 8$.



Statement	Justification
① Lines a & b are parallel	① Given
② $\angle 2 = \angle 3$	② Vertical \angle 's are =.
③ $\angle 3 = \angle 8$	③ Corresponding \angle 's are = if lines are parallel.
④ $\angle 2 = \angle 8$	④ Transitive Prop.

③ Given: X is midpoint of \overline{BC} and \overline{AD}

Prove: $AC = BD$



Statement	Justification
① X is midpoint of \overline{BC} .	① Given
② $CX = BX$	② Def. of midpoint
③ X is midpoint of \overline{AD}	③ Given
④ $AX = DX$	④ Def. of midpoint
⑤ $\angle AXC = \angle DXB$	⑤ Vertical \angle 's are =
⑥ $\triangle AXC \cong \triangle DXB$	⑥ SAS
⑦ $AC = BD$	⑦ CPCTC