### 2.3 ASA, AAS, and HL Congruence

Objective: Students will be able to prove congruence using ASA, AAS, and HL
Angle Side Angle Congruence (ASA)
Two congruent angles with a congruent side inbetween the angles


Determine the following triangles are congruent


## Hypotenuse Leg Congruence (HL)

Two RIGHT triangles are congruent if they each have a congruent leg and a congruent hypotenuse


Determine if $\boldsymbol{\Delta} A B C \cong \mathbf{\Delta} X Y Z$


Determine the following triangles are congruent


Given: $\angle Y=\angle T, \angle X=\angle K$
and $X Z=K M$
Prove: $\boldsymbol{\Delta} X Y Z=\boldsymbol{\Delta} K T M$


Given: $\angle A B D=\angle C B D$, $\angle A=\angle C$ and $A B=B C$

Prove: $\boldsymbol{\Delta A B D}=\boldsymbol{\Delta} C B D$




