Geometry

4.5 Prove Triangles Congruent by ASA and AAS

# ASA and AAS

Angle-Side-Angle

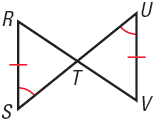
## ASA (\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Congruence Postulate)

If two angles and the included side of one triangle are congruent to two angles and the included side of another triangle, then the two triangles are congruent

## AAS (\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Congruence Theorem)

Angle-Angle-Side

If two angles and a non-included side of one triangle are congruent to two angles and a non-included side of another triangle, then the two triangles are congruent

In the diagram, what postulate or theorem can you use to prove that ΔRST ≅ ΔVUT?

∠RTS ≅ ∠UTV by Vert. Angles are Congruent

ΔRST ≅ ΔVUT by AAS

# Flow Proof

logic

arrows

statements

boxes

* Put \_\_\_\_\_\_\_\_\_ around \_\_\_\_\_\_\_\_\_\_\_\_\_\_ and draw \_\_\_\_\_\_\_\_\_\_\_ showing direction of \_\_\_\_\_\_\_\_

Statement 1

Given

Statement 2

What the given tells us

Statement 3

Given or definition from picture

Statement 4

What the given tells us

Statement 5

Combine the previous statements

B

C

A

E

F

D

Given: , , ,

Prove:

is rt

Def lines

Given

All rt. are

is rt

Def lines

Given

AAS

Given

Given

Given: ,

B

F

E

D

C

A

Prove:

Given

supp.

Linear Pair Post

supp.

Linear Pair Post.

Given

supplements thrm

ASA

Vert. s are

Assignment: 252 #2-20 even, 26, 28, 32-42 even = 18 total