

Partners: \_\_\_\_\_

Period: \_\_\_\_\_

### Activity for Congruent Triangle Proofs

1. Make each of the following triangles on the specified piece of colored paper using a ruler, a protractor, and a compass. Label the vertices **INSIDE** the triangle. Otherwise, when you later cut out the triangle you will lose your labels. Make sure to also write the type on the inside of the triangle.
2. Have the teacher check and initial for each triangle **BEFORE** you cut it out.
3. Cut out your triangles.
4. Tape each triangle to the designated chart paper. For example, the SAS triangle should so on the chart paper labeled SAS.

Triangle	Measurements	Type	Color Paper	Correct?
$\triangle ABC$	$AB = 4$ inches, $BC = 6$ inches, and $m\angle B = 60^\circ$	SAS	purple	
$\triangle EFG$	$EF = 3$ inches, $FG = 4$ inches, and $EG = 5$ inches	SSS	light green	
$\triangle HIJ$	$m\angle H = 60^\circ$ , $HI = 5$ inches, and $m\angle I = 80^\circ$ .	ASA	light blue	
$\triangle QRS$	$m\angle Q = 50^\circ$ , $m\angle R = 60^\circ$ , and $RS = 4$ inches	AAS	pink	
$\triangle KLM$	$m\angle K = 50^\circ$ , $m\angle L = 60^\circ$ , and $m\angle M = 70^\circ$ .	AAA	dark blue	
$\triangle NOP$	$NO = 4.5$ inches, $NP = 6$ inches, and $m\angle P = 40^\circ$ .	SAA	dark green	
$\triangle XYZ$	$m\angle Y = 90^\circ$ , $XZ = 5$ inches, and $XY = 3.5$ inches	HL	yellow	

#### Hints:

You and your partner may want to divide up the triangles for the sake of time. We will do  $\triangle EFG$ , so that leaves 3 for each partner.

The table below provides hints how to start making each triangle.

Triangle	Hint:
$\triangle ABC$	Start with $\overline{BC}$ .
$\triangle EFG$	Start with $\overline{EG}$ .
$\triangle HIJ$	Start with $\overline{HI}$ .
$\triangle QRS$	Start with $\overline{RS}$ and remember that the interior angle sum of any triangle is 180 degrees.
$\triangle KLM$	Start with a line and then do $\angle M$ .
$\triangle NOP$	Start with a line and then do $\angle P$ .
$\triangle XYZ$	Start with $\angle Y$ .