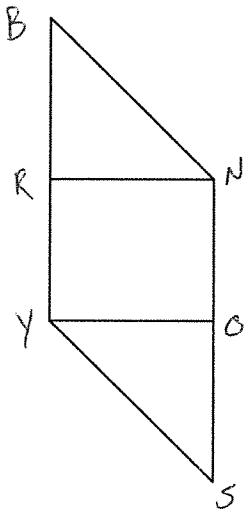
Proofs Mixed Review – Day 1

Unit 4: Similarities

Prove the following triangles are congruent using SSS, SAS, AAS, ASA, or HL:

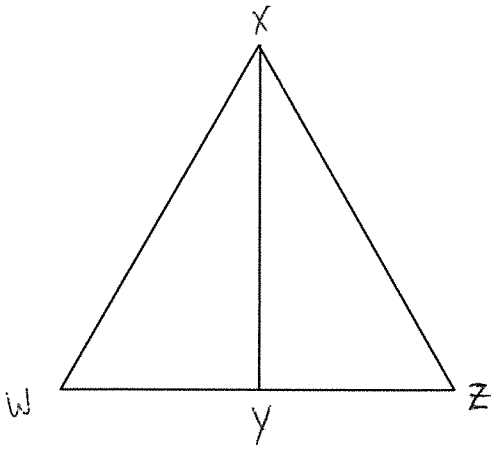
1. **Given:** $\overline{BR} \cong \overline{OS}$
   $\overline{BN} \cong \overline{SY}$
   RYON is a square

   Prove: Δ BRN ≅ Δ SOY



2. **Given:** ΔWXZ is an Isosceles Triangle
   $\overline{XY} \perp \overline{WZ}$
   Y is the midpoint of $\overline{WZ}$

   Prove: Δ WXY ≅ Δ ZXY



Prove the following triangles are similar using SSS, SAS, or AA:

3. **Given:** $\overline{KH} \parallel \overline{EO}$

$\overline{KH}$ = 16

$\overline{KL}$ = 28

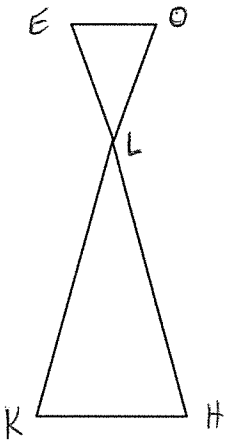
$\overline{HL}$ = 32

$\overline{EO}$ = 4

$\overline{EL}$ = 8

$\overline{LO}$ = 7

Prove: Δ KHL ~ Δ OEL



4. Given: $\overline{BE} \perp \overline{AD}$

$\overline{AE}$ = 10

$\overline{BC}$ = 12

$\overline{CE}$ = 12

$\overline{ED}$ = 5

Prove: Δ ABE ~ Δ DCE