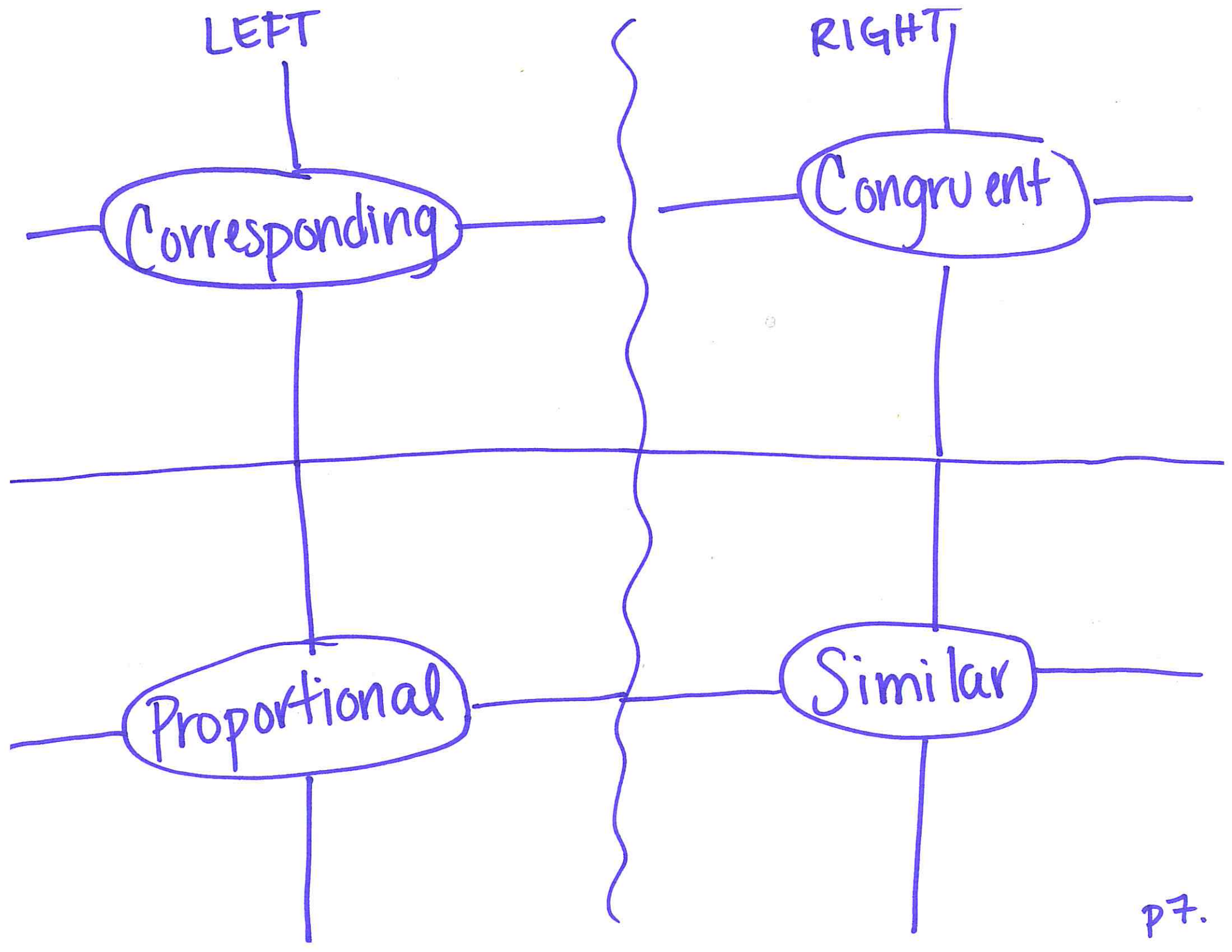

LEFT
RIGHT
Corresponding
Congruent
Proportional
Similar

Corresponding

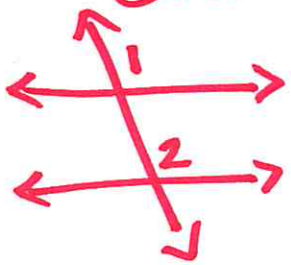
Definition:

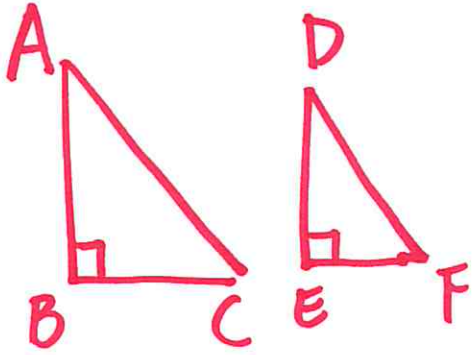
Angles, sides, parts in the same place from different figures.

Facts / Remiders:

* Don't have to be congruent.
* Sometimes a relationship with parallel lines.
* Same position.
* For Similarity:
  1. Corresponding sides proportional
  2. Corresponding angles congruent

Example:

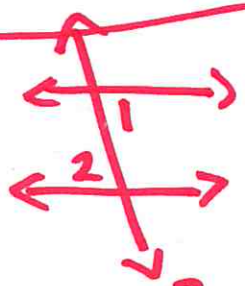


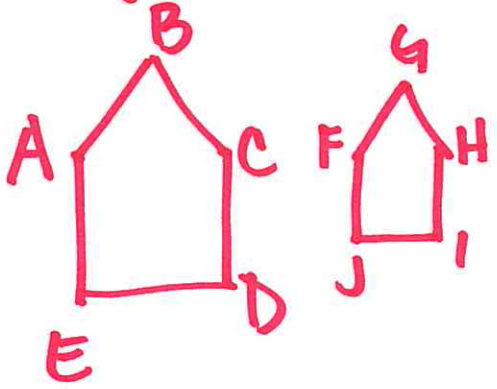


$\overline{BC}$ corresponds to $\overline{EF}$.

$\angle A$ corresponds to $\angle D$.

Non Example:





$\angle B$ does not correspond to $\angle J$.

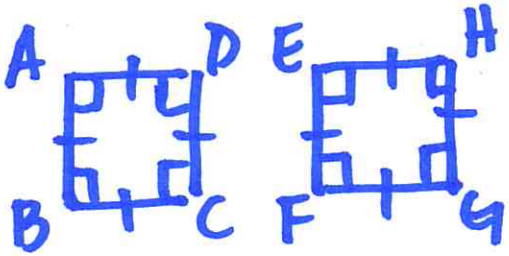
3rd

Congruent

Definition:
when angles, sides, parts have equal measures or length.

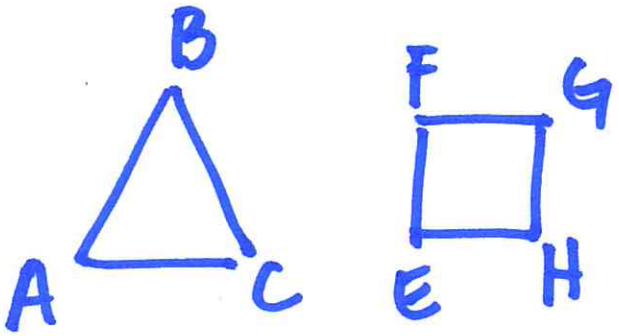
Facts / Reminders:
* Reflection, Rotation, Translation are congruent
* Dilations are NOT congruent. (similar)
* Squares / rectangles have congruent angles.
* vertical angles.

Example:



$ABCD \cong EFGH$

Non Example:



$\triangle ABC \ncong EFGH$

3rd

Proportional

Definition:

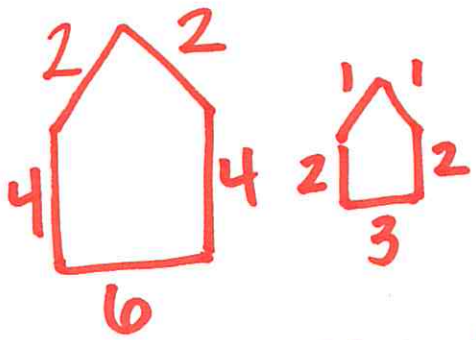
When sides of a figure or object have the same (equal) ratios.

Facts/Reminders:

* Ratios Equal. (Same Scale Factor)
  * Only sides *
* For two figures to be similar all sides must be proportional.

(unless using AA~ or SAS~ for triangles)

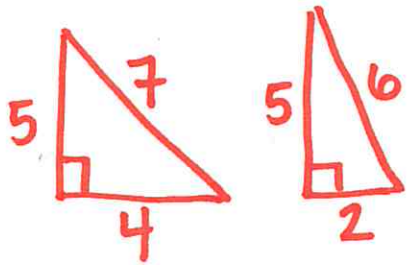
Example:



The scale factor from small to large is 2.

$$\frac{2}{1} = \frac{4}{2} = \frac{6}{3} = \boxed{2}$$

Non-Example:



$$\frac{7}{6} \neq \frac{4}{2}$$

3rd

Similar

Definition:

Figures that have the same shape, but different size.

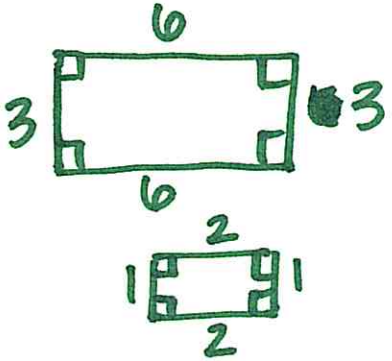
Facts / Reminders:

* AA~, SAS~, SSS~ work for ONLY TRIANGLES.
* Same Shape.
* Size does not matter!

Example:

① Corresponding angles congruent.

② Corresponding sides proportional.

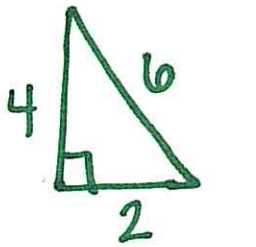


① All angles are 90°.

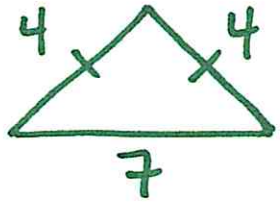
② $\frac{6}{2} = 3$

$\frac{3}{1} = 3$

Non - Example:



$\frac{4}{4} \neq \frac{4}{2}$



3rd