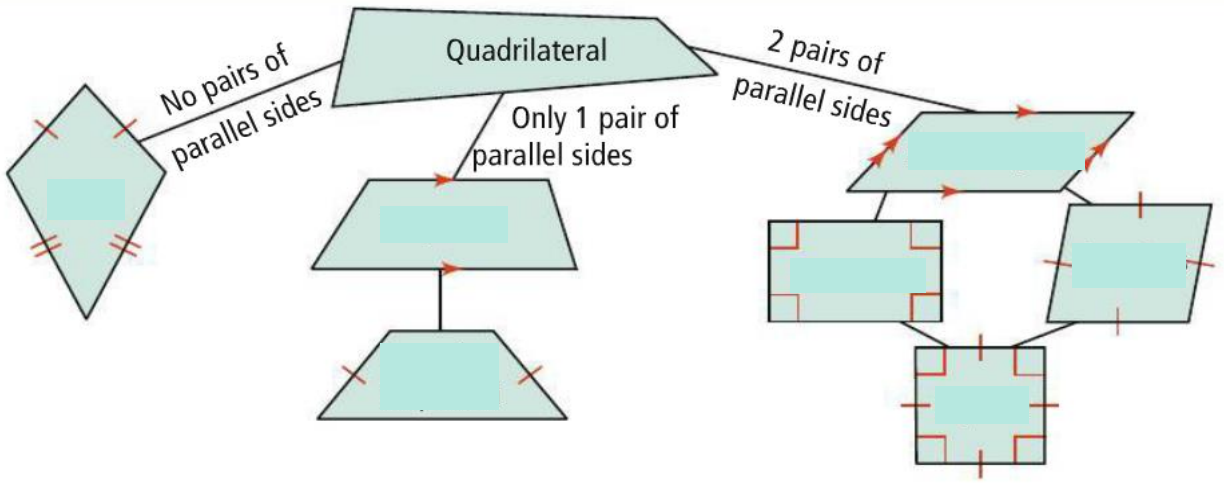
Geometry Spring Final Exam Note Sheet: Name: _____

Quadrilaterals:



Properties of Quadrilaterals

- If quadrilateral is a parallelogram then
  - Opposite sides are congruent
  - Opposite angles are congruent
  - Consecutive angles are supplementary
  - Diagonals bisect each other
- If quadrilateral al is a rhombus then
  - Diagonals are perpendicular
- If quadrilateral is a rectangle then
  - Diagonals are congruent

The quadrilateral is a parallelogram if…

- The opposite angles are congruent
- The opposite sides are equal
- The diagonals bisect each other
- The consecutive angles are supplementary.

Ch. 8-9A: Similarity and Special Right Triangles

Similarity Postulate: Two polygons are similar if and only if …

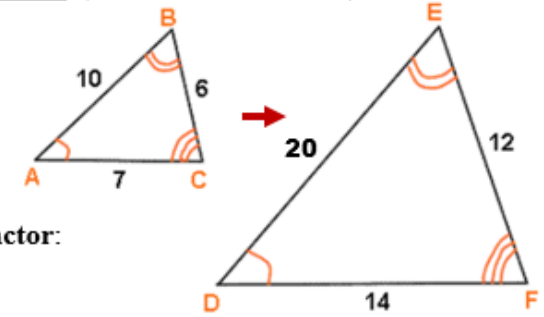
- Corresponding _____ are _____.
- Corresponding _____ are _____. (same ratio)

Similarity Statements: △_____ ~ △_____ (the order of letters matters)

Angles: $\angle A \cong \angle D$, _____, _____

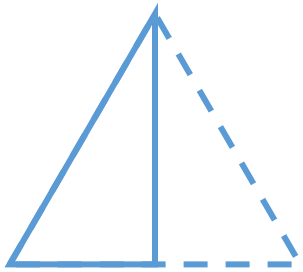
Sides: $\frac{DE}{AB} = \frac{\quad}{\quad} = \frac{\quad}{\quad}$

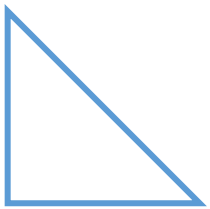
Scale Factor:



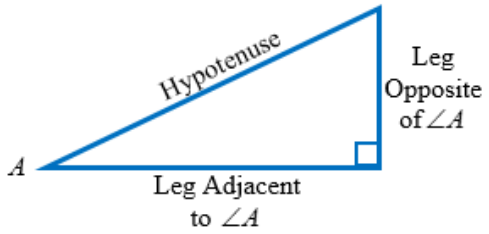
Triangles can be proven similar by _____ or _____ or _____.

Special Right Triangles:





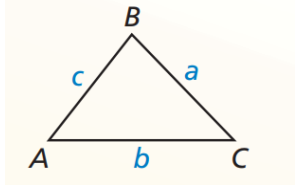
Ch. 9B: Right Triangle Trigonometry



SOHCAHTOA:

$\sin(A) = \frac{\quad}{\quad}$ $\cos(A) = \frac{\quad}{\quad}$ $\tan(A) = \frac{\quad}{\quad}$

Ch. 9C: Law of Sines and Cosines



Law of Cosines:

$$a^2 = b^2 + c^2 - 2bc\cos(A)$$
$$b^2 = a^2 + c^2 - 2ac\cos(B)$$
$$c^2 = a^2 + b^2 - 2ab\cos(C)$$

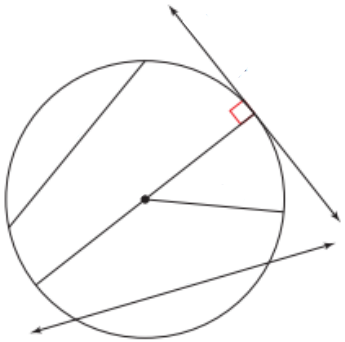
Law of Sines:

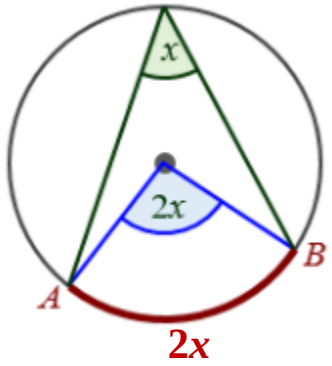
$$\frac{\sin(A)}{a} = \frac{\sin(B)}{b}$$
$$\frac{\sin(B)}{b} = \frac{\sin(C)}{c}$$
$$\frac{\sin(A)}{a} = \frac{\sin(C)}{c}$$

Area of a Triangle:

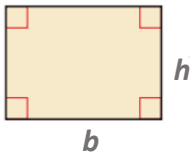
$$Area = \frac{1}{2}bc\sin(A)$$
$$= \frac{1}{2}ac\sin(B)$$
$$= \frac{1}{2}ab\sin(C)$$

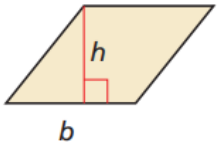
Ch. 10: Circles

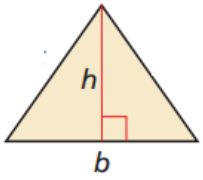


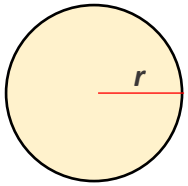


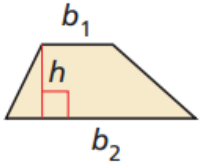
Ch. 11: Area

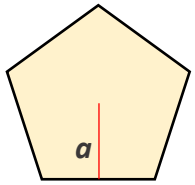






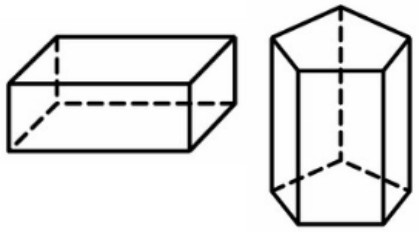




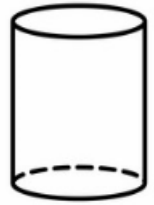


Ch. 11: Surface and Volume

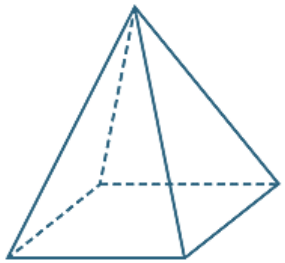
Prism:



Cylinder:



Pyramid:



Cone:

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