1.4

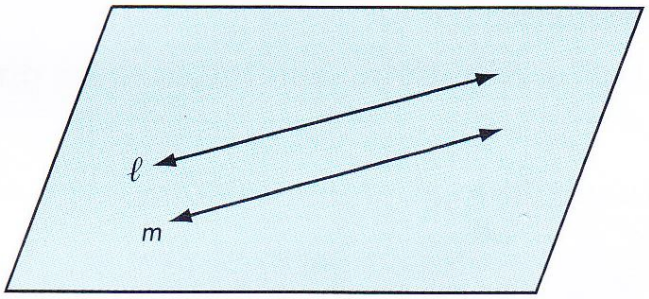
ANGLE PAIRS

With your protractors, make the following angles:

1) 40°
2) 130°
3) 95°
4) 25°

1. Define *parallel lines.*

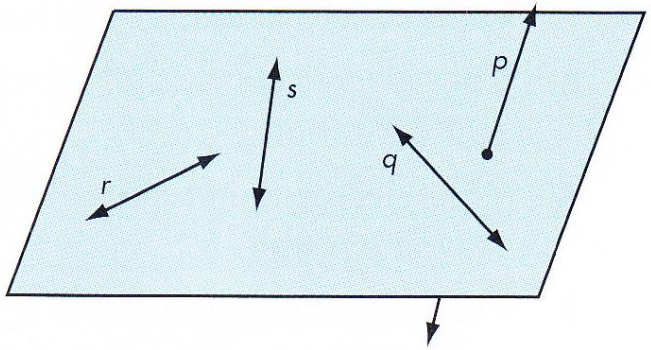
Parallel lines



$\ell \parallel m$

Note: Lines are sometimes labeled and named with lowercase letters. The symbol $\parallel$ means "is parallel to."

Not parallel lines

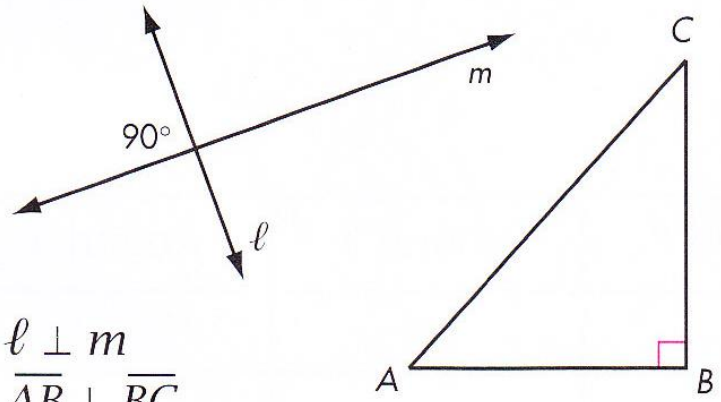


Line r is not parallel to line s.
Line p is not parallel to line q.
Note: Lines p and q are not in the same plane. Such lines are called **skew** lines.

SKEW LINES

2. Define *perpendicular lines.*

Perpendicular lines

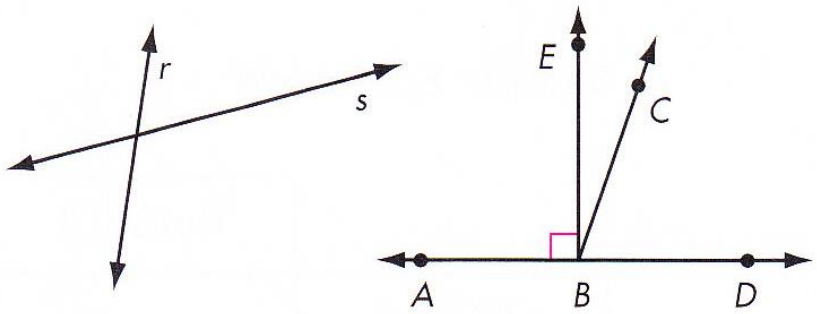


$\ell \perp m$

$\overline{AB} \perp \overline{BC}$

Note: The symbol $\perp$ means "is perpendicular to."

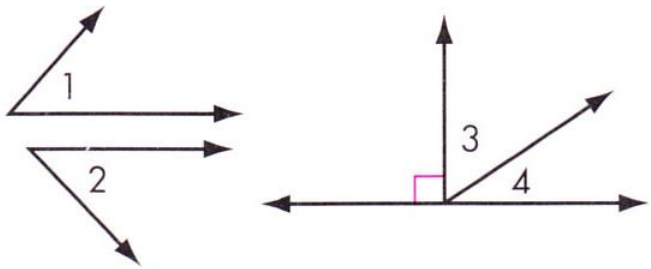
Not perpendicular lines



Line *r* is not perpendicular to line *s*.
Ray *BC* is not perpendicular to line *AD*.

3. Define *pair of complementary angles.*

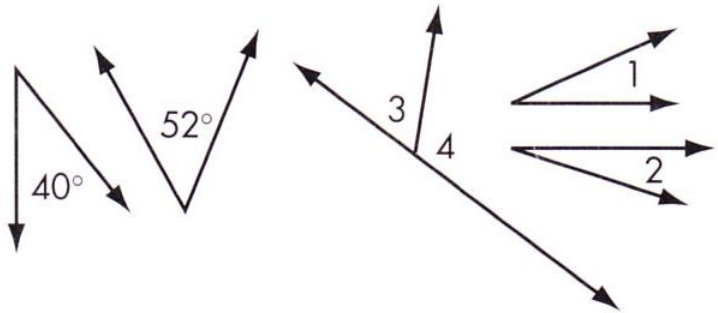
Pairs of complementary angles



$m\angle 1 + m\angle 2 = 90^\circ$

$m\angle 3 + m\angle 4 = 90^\circ$

Not pairs of complementary angles

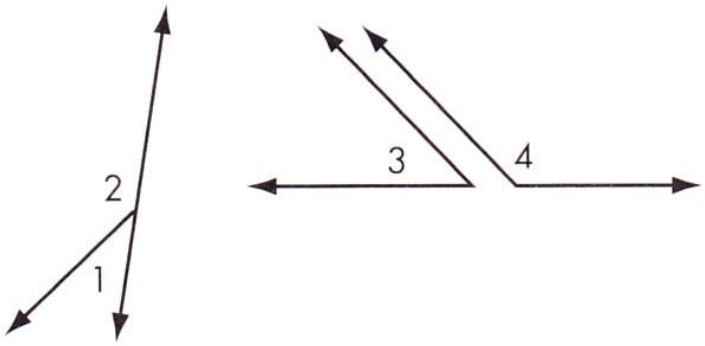


$m\angle 1 + m\angle 2 < 90^\circ$

Note: Sometimes it's convenient to name angles in a diagram with a number.

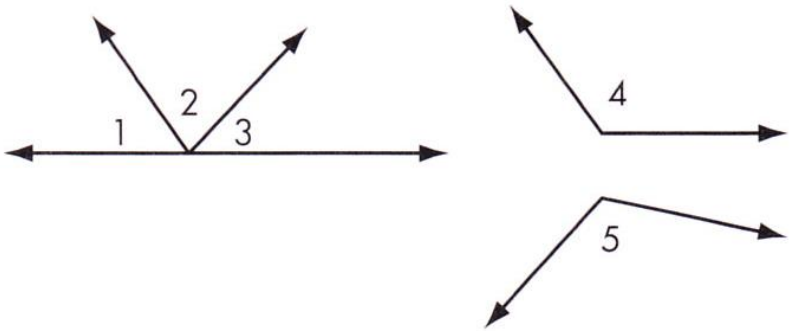
4. Define *pair of supplementary angles.*

Pairs of supplementary angles



$m\angle 1 + m\angle 2 = 180^\circ$
$m\angle 3 + m\angle 4 = 180^\circ$

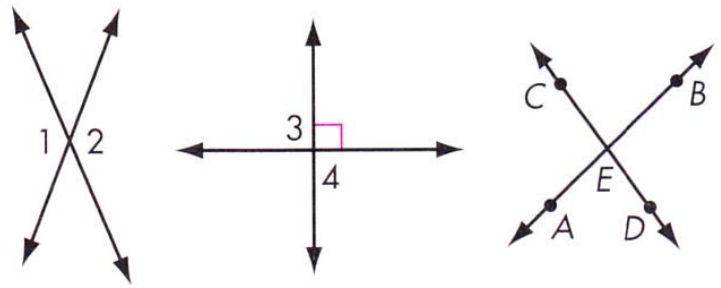
Not pairs of supplementary angles



$m\angle 1 + m\angle 2 < 180^\circ$
$m\angle 4 + m\angle 5 > 180^\circ$

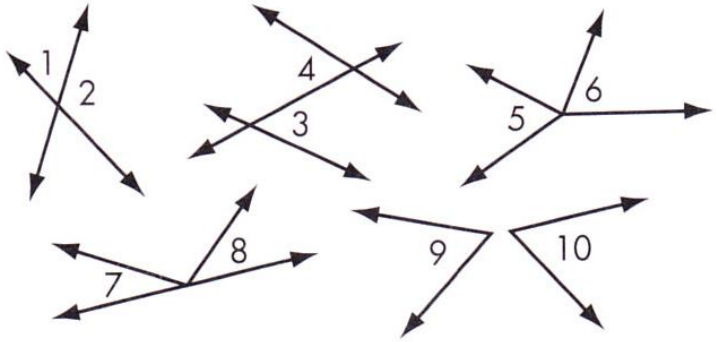
5.* Define *pair of vertical angles.*

Pairs of vertical angles



$\angle 1$ and $\angle 2$ are a pair of vertical angles.
$\angle 3$ and $\angle 4$ are also vertical angles.
$\angle AED$ and $\angle BEC$ are also vertical angles.

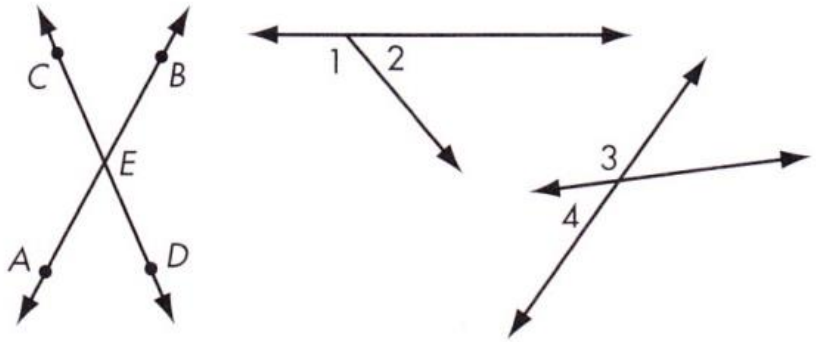
Not pairs of vertical angles



$\angle 1$ and $\angle 2$, $\angle 3$ and $\angle 4$, $\angle 5$ and $\angle 6$, $\angle 7$ and $\angle 8$, and $\angle 9$ and $\angle 10$ are not pairs of vertical angles.

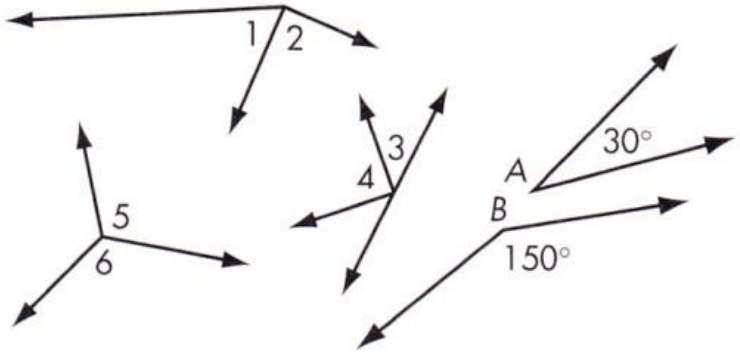
6.* Define *linear pair of angles.*

Linear pairs of angles



$\angle 1$ and $\angle 2$ are a linear pair of angles.
$\angle 3$ and $\angle 4$ are a linear pair of angles.
$\angle AED$ and $\angle AEC$ are a linear pair of angles.

Not linear pairs of angles



$\angle 1$ and $\angle 2$, $\angle 3$ and $\angle 4$, $\angle 5$ and $\angle 6$, and $\angle A$ and $\angle B$ are not linear pairs of angles.

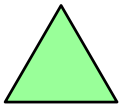
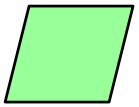
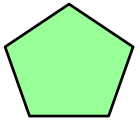
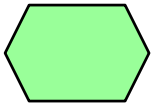
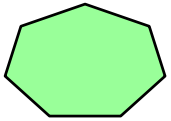
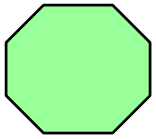
1.5

CLASSIFYING POLYGONS

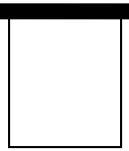
DEFINITIONS

- Polygon
- Convex Polygon
- Consecutive Vertices
- Consecutive Sides
- Consecutive Angles
- Perimeter

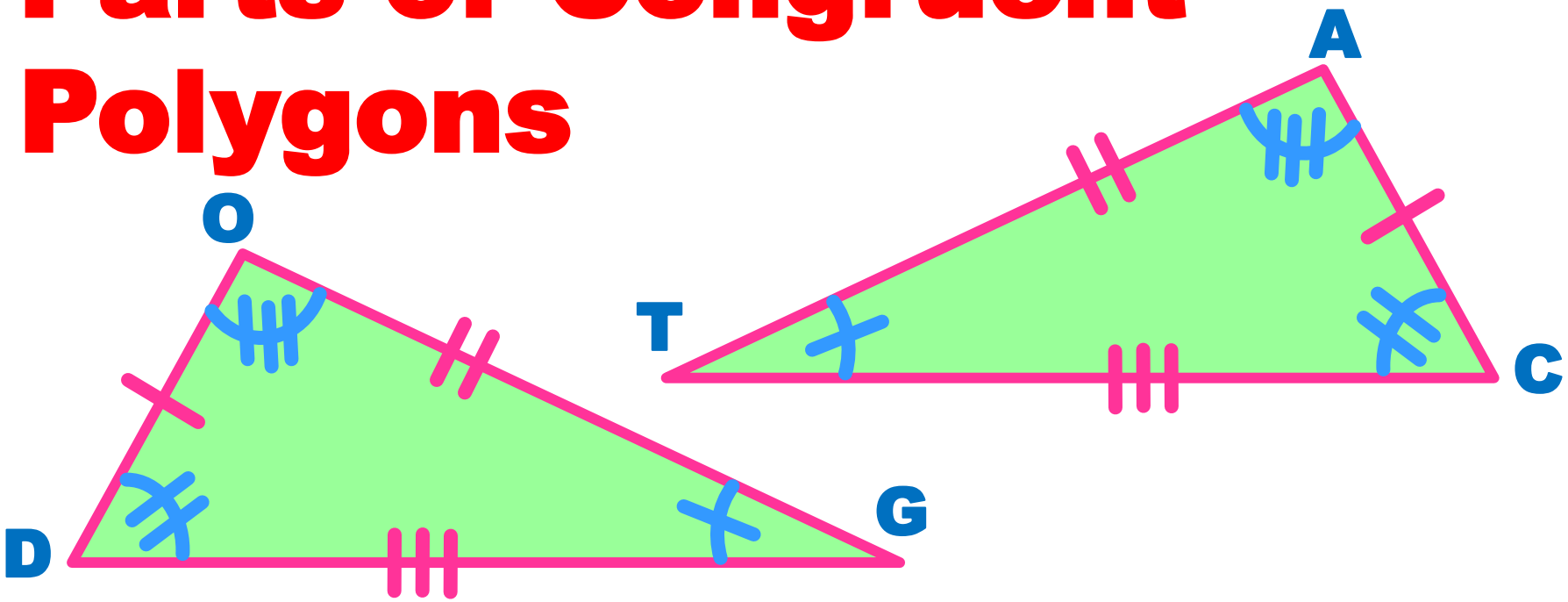
CLASSIFYING POLYGONS

Sides	Name	
		
		
		
		
		
		

CLASSIFYING POLYGONS

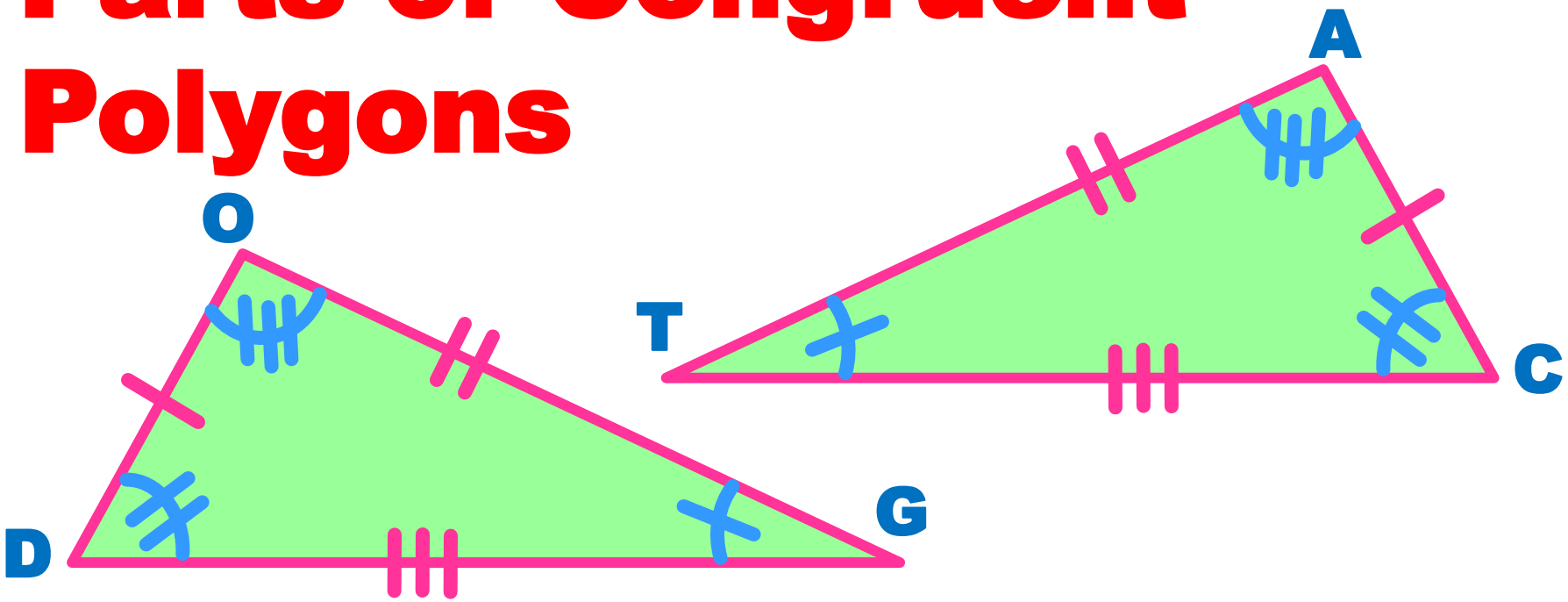
Sides	Name	
		

Parts of Congruent Polygons

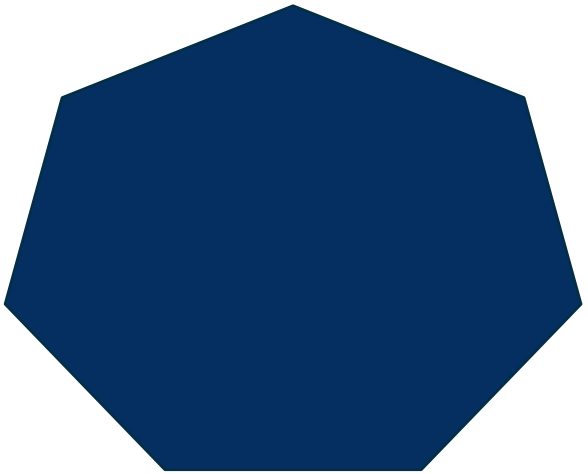


_____ have the same size and shape. In addition, _____ of these shapes are parts that look the same

Parts of Congruent Polygons

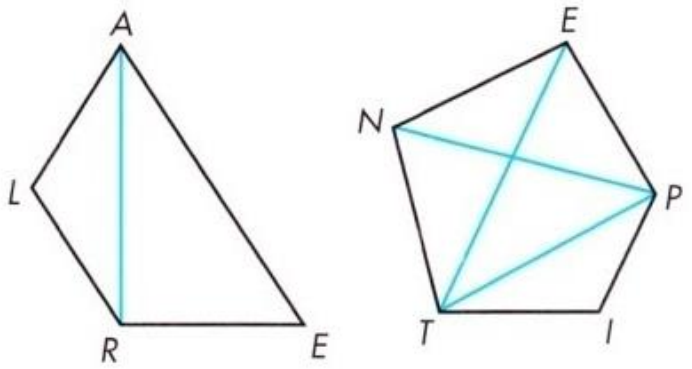


Naming Polygons



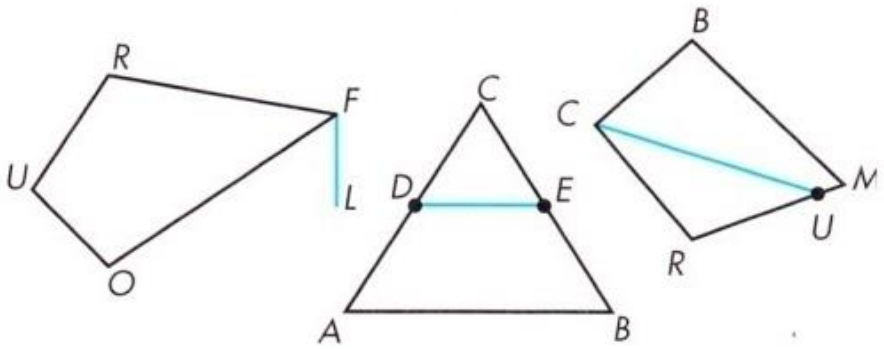
1. Define *diagonal of a polygon.*

Diagonals of polygons



Segments *AR*, *PN*, *TE*, and *PT* are diagonals.

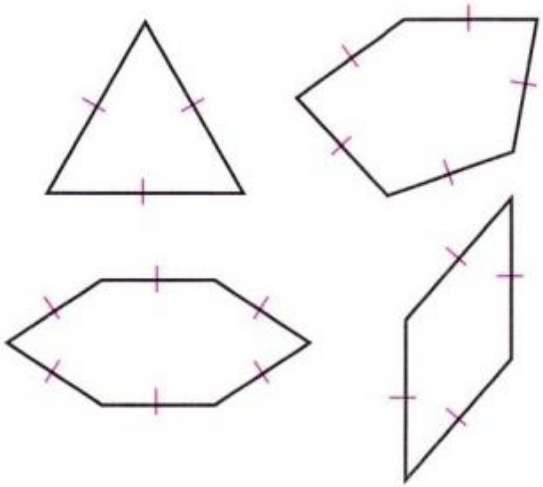
Not diagonals of polygons



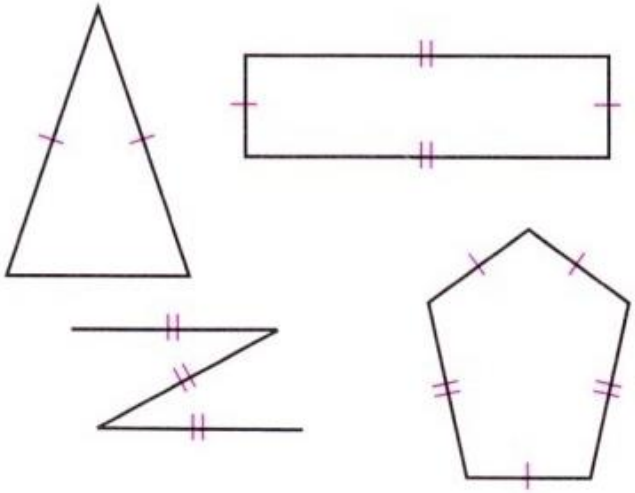
Segments *FL*, *FO*, *CU*, and *DE* are not diagonals.

2. Define *equilateral polygon.*

Equilateral polygons

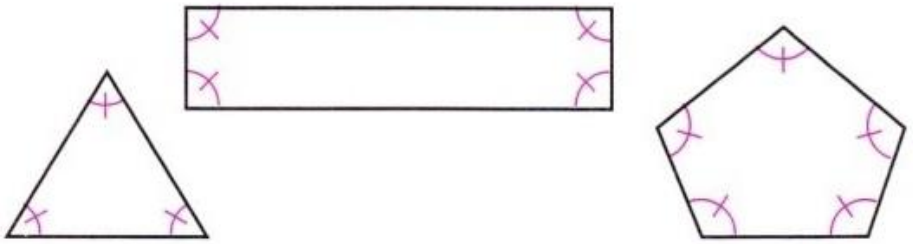


Not equilateral polygons

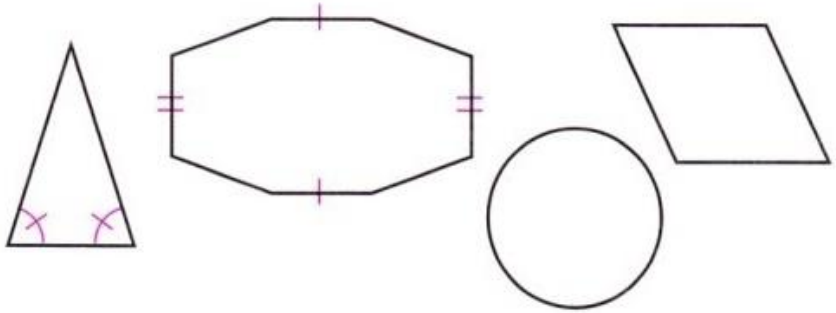


3. Define *equiangular polygon.*

Equiangular polygons

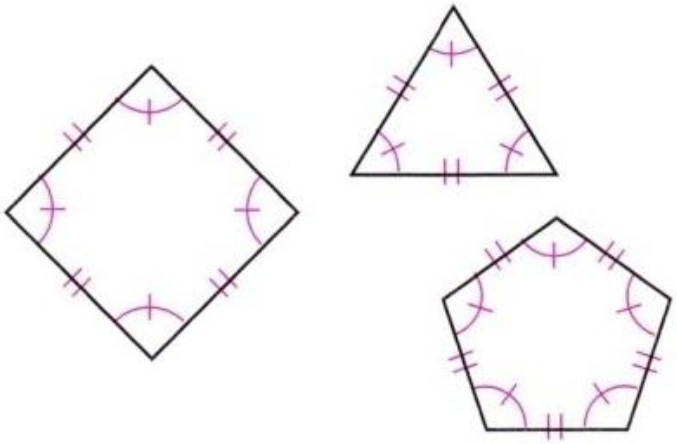


Not equiangular polygons

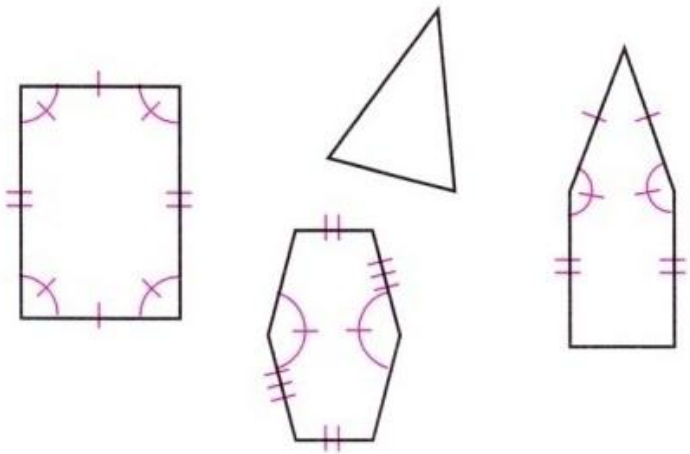


4.* Define *regular polygon.*

Regular polygons

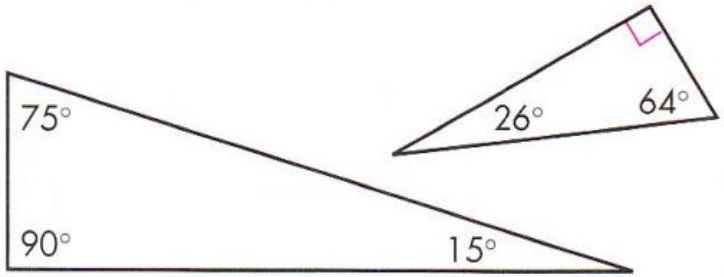


Not regular polygons

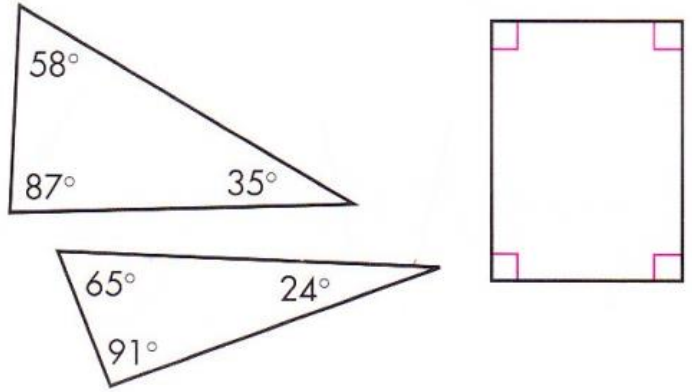


1.* Define *right triangle.*

Right triangles

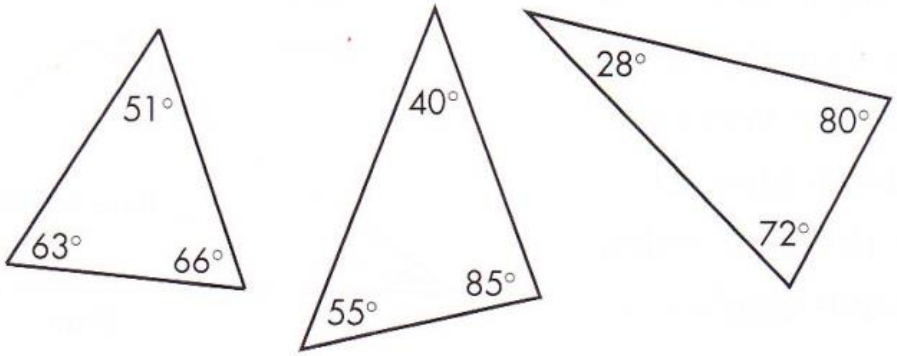


Not right triangles

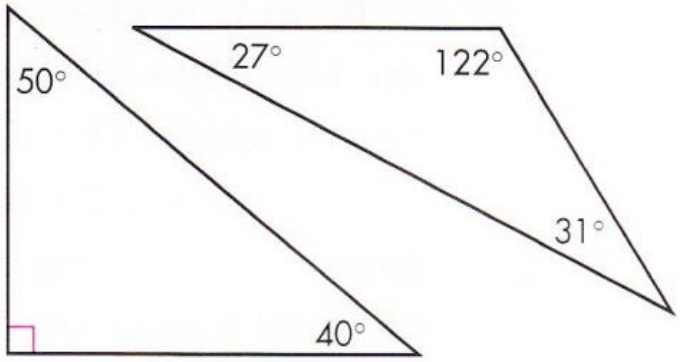


2. Define *acute triangle.*

Acute triangles

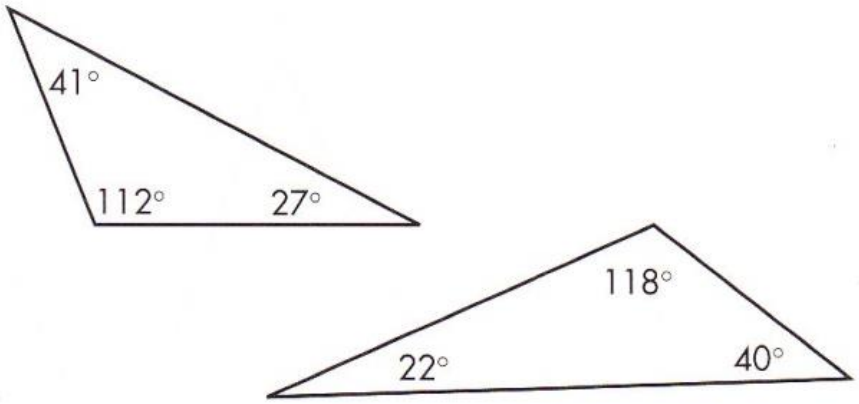


Not acute triangles

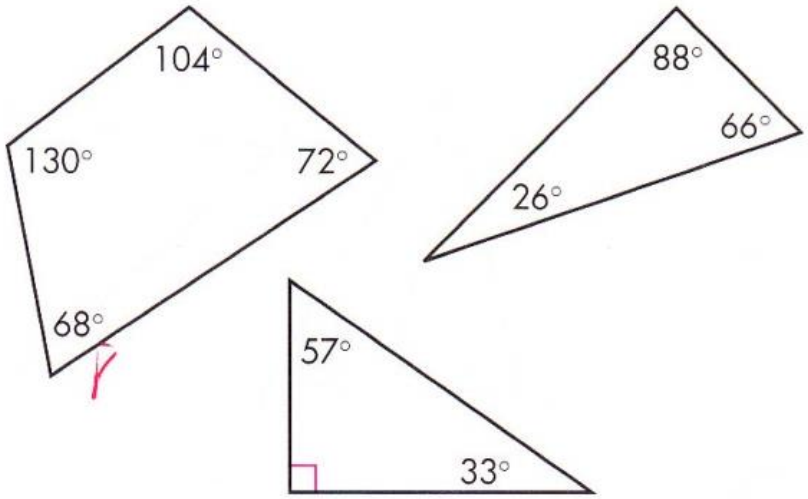


3. Define *obtuse triangle.*

Obtuse triangles

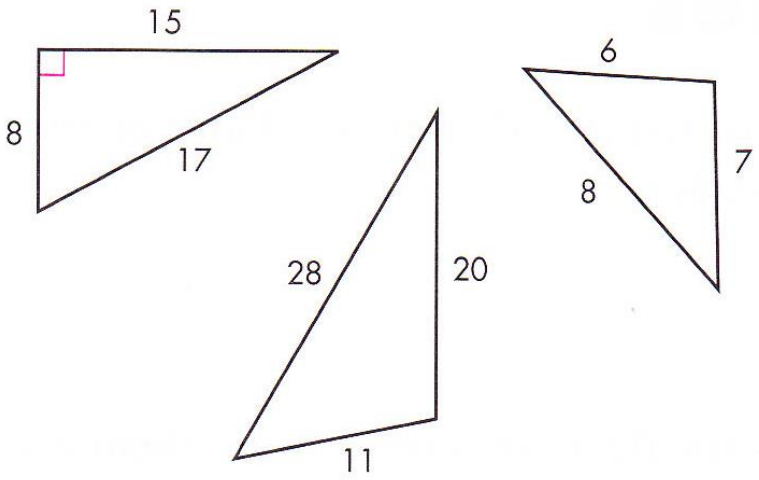


Not obtuse triangles

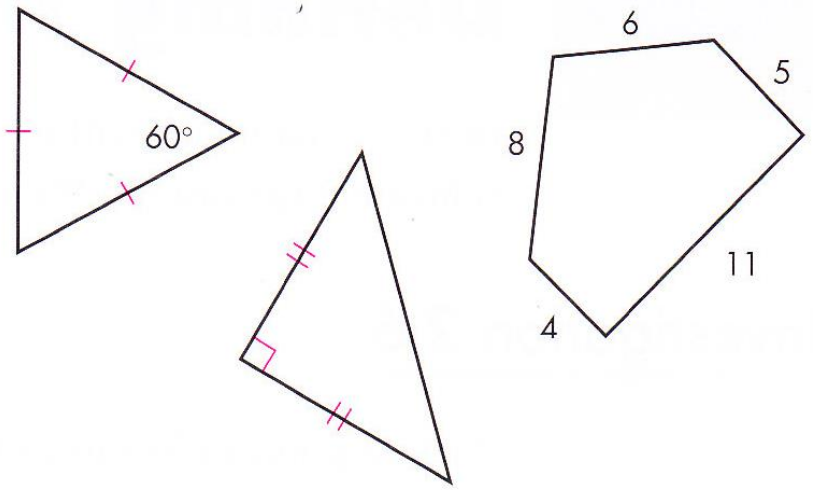


4. Define *scalene triangle.*

Scalene triangles

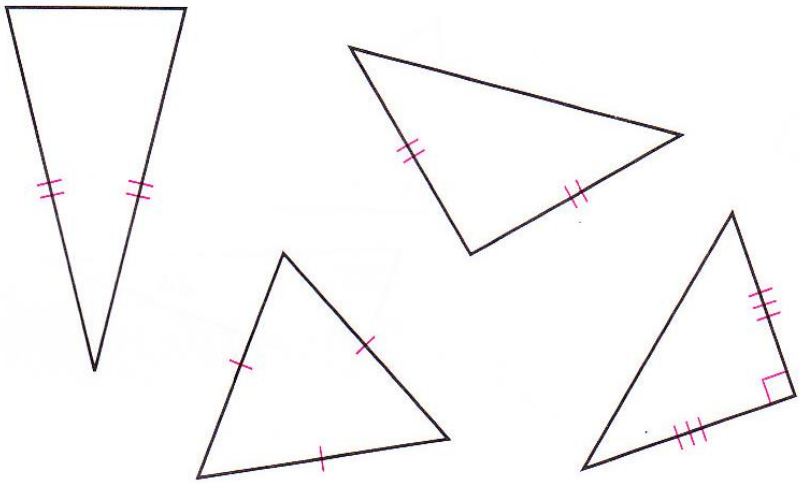


Not scalene triangles

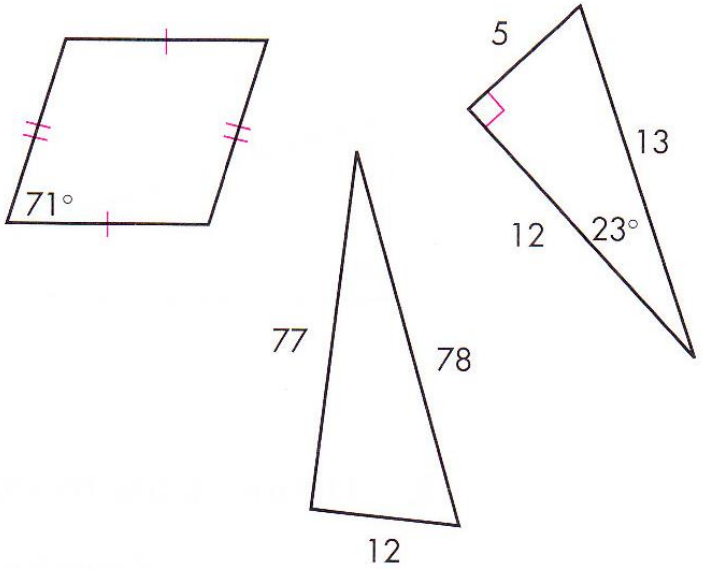


5. Define *isosceles triangle.*

Isosceles triangles

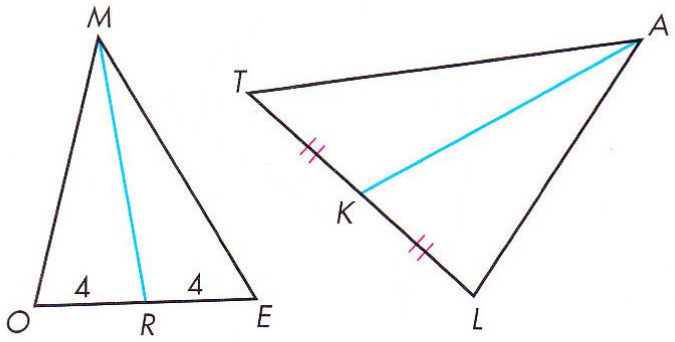


Not isosceles triangles



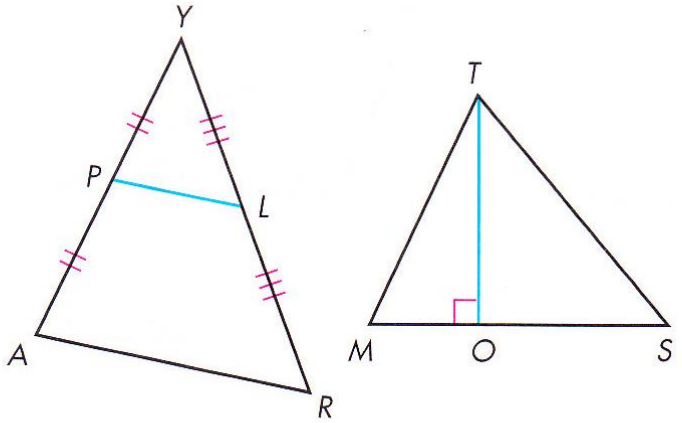
6. Define *median of a triangle.*

Medians of triangles



Segments MR and AK are medians.

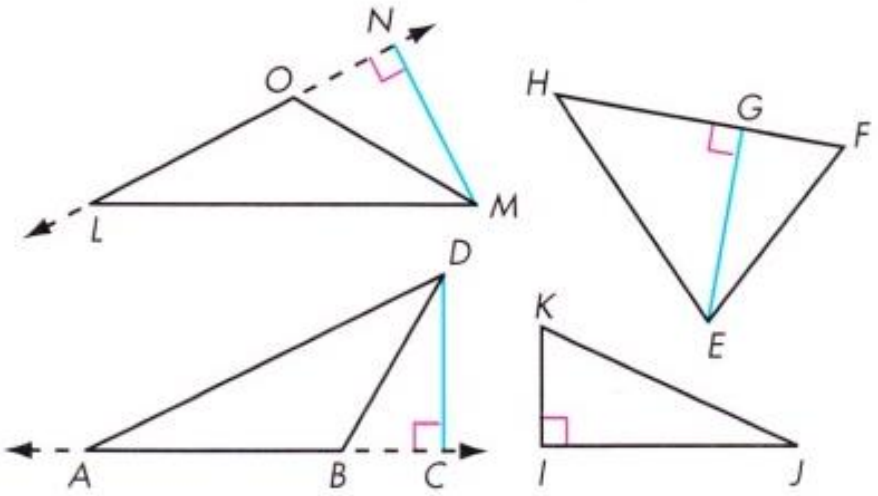
Not medians of triangles



Segments PL and TO are not medians.

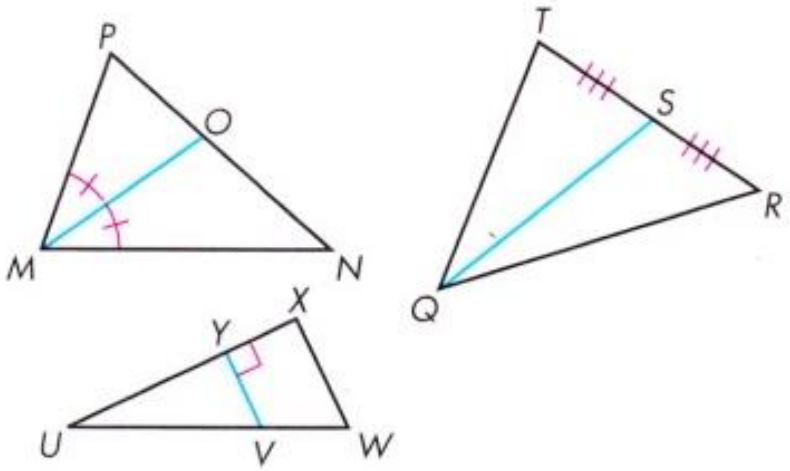
7. Define *altitude of a triangle.*

Altitudes of triangles



Segments *MN*, *EG*, *CD*, and *IK* are altitudes.

Not altitudes of triangles



Segments *MO*, *QS*, and *VY* are not altitudes.