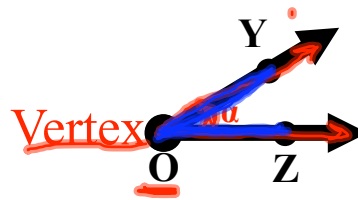
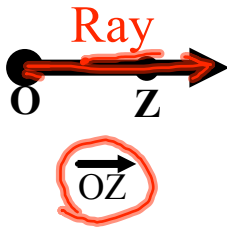
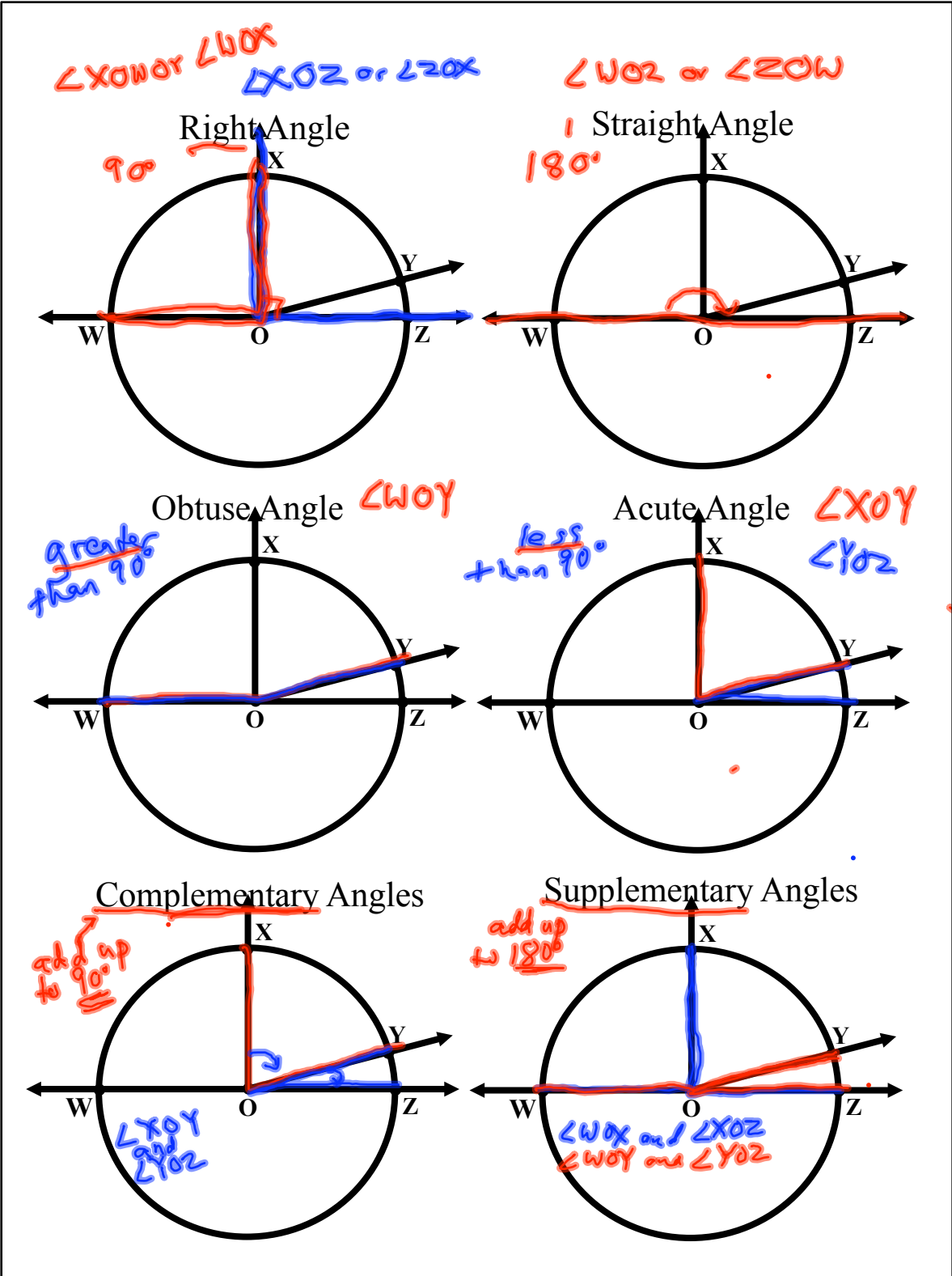


Exploring Angle Relationships



An **angle** is the figure formed when two rays meet at a common endpoint.

- $\rightarrow \alpha$
- $\rightarrow \angle O$
- $\rightarrow \underline{\angle YOZ}$
- $\rightarrow \angle ZOY$



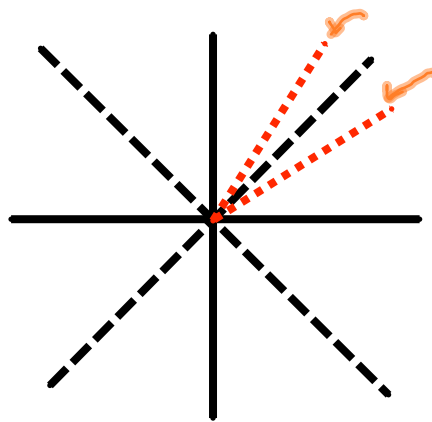
Estimating Angle Measures

Sketch a...

90° angle

45° angle

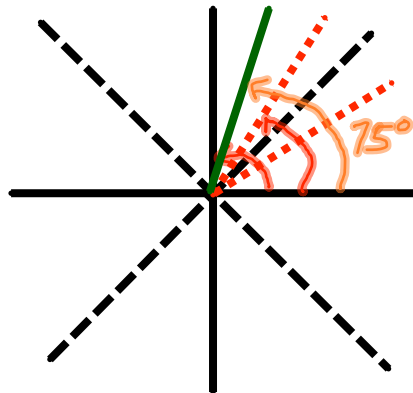
135° angle



How would you sketch a...

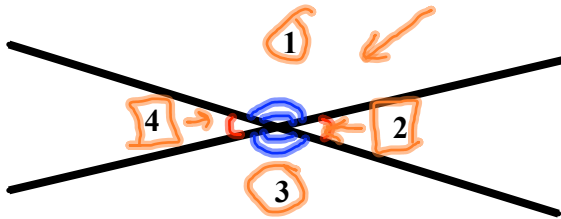
60° angle

75° angle



Remember congruent segments, sides, polygons...

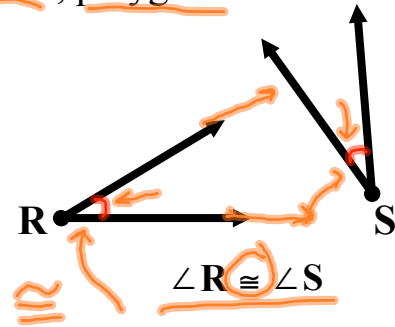
Now we have congruent angles
Angles with equal measures



Vertical angles have equal measure

$$\angle 1 \cong \angle 3 \quad \angle 2 \cong \angle 4$$

Angles formed by intersecting lines
and facing in opposite directions



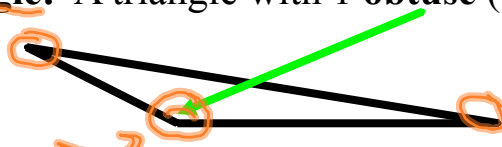
NOTE:

If you make the rays longer,
the angle is still the same!!

Acute Triangle: A triangle with all **3 acute** ($< 90^\circ$) angles



Obtuse Triangle: A triangle with 1 **obtuse** ($> 90^\circ$) angle



Right Triangle: A triangle with 1 **right** ($= 90^\circ$) angle

