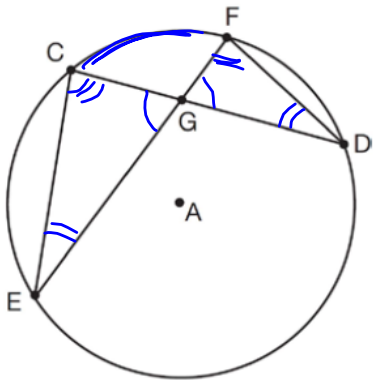
DO NOW

In the diagram of circle A shown below, chords $\overline{CD}$ and $\overline{EF}$ intersect at G, and chords $\overline{CE}$ and $\overline{FD}$ are drawn.



Which statement is *not* always true?

1) $\overline{CG} \cong \overline{FG}$
2) $\angle CEG \cong \angle FDG$
3) $\frac{CE}{EG} = \frac{FD}{DG}$
4) $\triangle CEG \sim \triangle FDG$

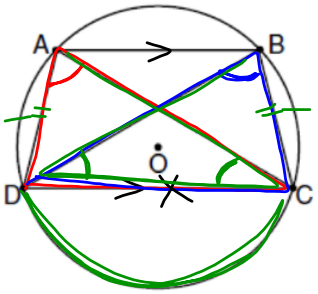
Apr 5-10:16 AM

REMINDER: To prove triangles are congruent, use SSS, SAS, ASA, AAS or HL

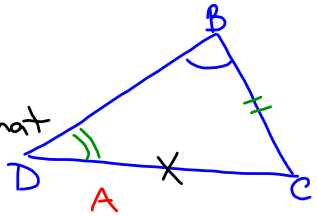
To prove segments or angles are congruent, use CPCTC *after* you prove the triangles are congruent!!

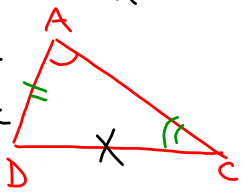
May 9-8:31 AM

In the diagram below, quadrilateral $ABCD$ is inscribed in circle O, $\overline{AB} \parallel \overline{DC}$, and diagonals $\overline{AC}$ and $\overline{BD}$ are drawn. Prove that $\triangle ACD \cong \triangle BDC$.



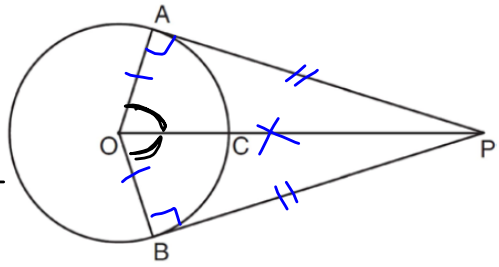
Statement	Reason
1) $\overline{AB} \parallel \overline{DC}$	1) Given
2) $\overset{\frown}{AD} \cong \overset{\frown}{BC}$	2) Parallel chords intercept $\cong$ arcs
3) $\angle ACD \cong \angle BDC$	3) Inscribed $\angle$'s that intercept $\cong$ arcs are $\cong$
4) $\angle DBC \cong \angle CAD$	4) Inscribed $\angle$'s that intercept the same arc are $\cong$
5) $\overline{CD} \cong \overline{CD}$	5) Reflexive property
6) $\triangle ACD \cong \triangle BDC$	6) AAS





May 8-8:13 AM

In the diagram below, $\overline{PA}$ and $\overline{PB}$ are tangent to circle O, $\overline{OA}$ and $\overline{OB}$ are radii, and $\overline{OP}$ intersects the circle at C. Prove: $\angle AOP \cong \angle BOP$



Statement	Reason
1) $\overline{PA}$ and $\overline{PB}$ are tangent to circle O	1) Given
2) $\overline{OA} \cong \overline{OB}$	2) All radii are $\cong$
3) $\overline{OP} \cong \overline{OP}$	3) Reflexive property
4) $\overline{AP} \cong \overline{BP}$	4) Two tangents from same external point are $\cong$
5) $\triangle AOP \cong \triangle BOP$	5) SSS
6) $\angle AOP \cong \angle BOP$	6) CPCTC

May 8-1:06 PM