SLO: I can prove parts of triangles are congruent through CPCTC.

☺☺☺☺Today is a GREAT day to think mathematically! Let's get organized first. ☺☺☺☺

TABLE OF CONTENTS: **12/12 Proof by CPCTC**

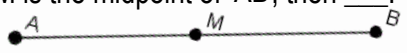
NEW NOTEBOOK PAGE: **12/12 Proof by CPCTC – Name**
SLO: I can prove parts of triangles are congruent through CPCTC.

Assignment Sheet: **12/12 CW: Proof by CPCTC due 12/12**
12/12 HW: Proof by CPCTC due 12/13

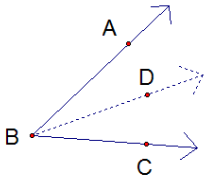
DO NOW SHEET: **Name, Date, Period, draw a diagram that shows $\triangle ABC \cong \triangle MNL$. Mark all the congruent corresponding parts.**

LESSON: Pre-proof practice. Complete each statement in your notebook.

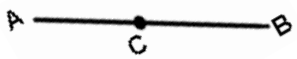
(a) If M is the midpoint of $\overline{AB}$, then ___.



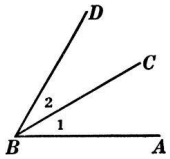
(b) If $\overrightarrow{BD}$ bisects $\angle ABC$, then___.



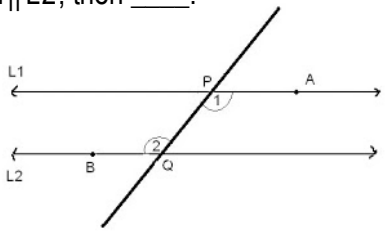
(c) If $\overline{AC} \cong \overline{BC}$, then ____.



(d) If $\angle 1 \cong \angle 2$, then ____.



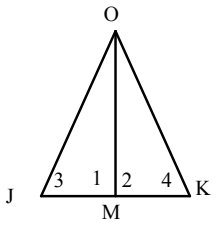
(e) If L1||L2, then ____.



SLO: I can prove parts of triangles are congruent through CPCTC.

Use the statements and reasons provided to organize a flowchart proof. Use the transparencies provided to organize a your proof and then copy your proof into your notebook.

(1)

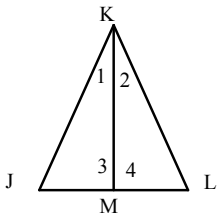


Given: $\angle 1 \cong \angle 2$
$\angle 3 \cong \angle 4$

Prove: M is the mp of $\overline{JK}$

STATEMENTS	REASONS
$\angle 1 \cong \angle 2$	given
$\angle 3 \cong \angle 4$	given
$\overline{OM} \cong \overline{OM}$	reflexive prop.
$\Delta JOM \cong \Delta KOM$	ASA congruence post.
$\overline{JM} \cong \overline{KM}$	CPCTC
M is the midpoint of $\overline{JK}$	def. of midpoint

(2)

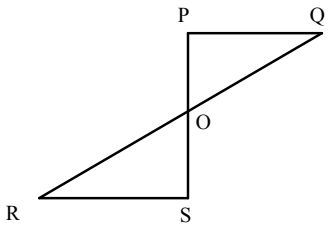


Given: $\angle 1 \cong \angle 2$
$\angle 3 \cong \angle 4$

Prove: ΔJKL is isosceles

STATEMENTS	REASONS
$\overline{JK} \cong \overline{LK}$	reflexive
$\overline{KM} \cong \overline{KM}$	ASA congruence post.
$\angle 3 \cong \angle 4$	CPCTC
ΔJKL is isosceles	given
$\angle 1 \cong \angle 2$	def. of isosceles
$\Delta JMK \cong \Delta LMK$	given

(3)



Given: $\angle P \cong \angle S$
O is the mp of $\overline{PS}$

Prove: O is the mp of $\overline{QR}$

STATEMENTS	REASONS
$\angle POQ \cong \angle SOR$	def. of midpoint
$\Delta POQ \cong \Delta SOR$	def. of midpoint
O is the midpoint of $\overline{QR}$	ASA congruence post.
$\angle P \cong \angle S$	CPCTC
$\overline{PO} \cong \overline{SO}$	given
$\overline{QO} \cong \overline{RO}$	vertical
O is the midpoint of $\overline{PS}$	given

HOMEWORK: 12/12 CPCTC

EXIT

BACK OF DO NOW SHEET: **Today my level of understanding is ☺😐☹ because _____**

Copy flowchart #2 from your notebook.