SLO: I can write conditional statements in a flowchart format and include reasons for each hypothesis and conclusion.

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

TABLE OF CONTENTS: 11/13   Flowchart reasoning

NEW NOTEBOOK PAGE: 11/13   Flowchart reasoning – Name
                                          SLO: I can write conditional statements in a flowchart format and include
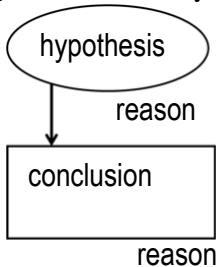   reasons for each hypothesis and conclusion.

Assignment Sheet: 11/13 CW: Flowchart reasoning Due 11/13
                             11/13 HW: None

DO NOW SHEET: NONE – Do notes if you were absent Friday. Do CW if you were here.
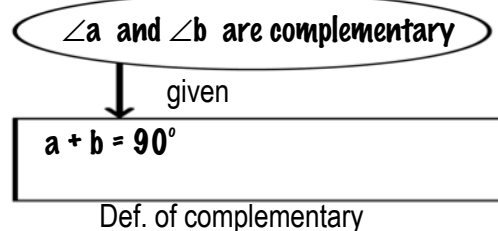
LESSON: (Record all work in your notebook.)

Notes (Copy into your notebook and draw a box around them) **SAME AS 11/9, NO NEED TO COPY TWICE**

Vocabulary: Flowchart: representation of a logical argument with statements and reasons.

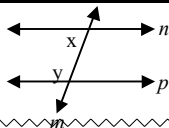**Example: If $\angle a$ and $\angle b$ are complementary then a + b = 90°.**

hypothesis

reason

conclusion

reason

$\angle a$ and $\angle b$ are complementary

given

$a + b = 90°$

Def. of complementary

CW: Use the reasons below to complete the flowcharts for the conditional statements on the back of this sheet.

Given	Definition of congruent	Alternate Interior Angles Theorem (& converse)
Definition of supplementary	Definition of right angle	Alternate Exterior Angles Theorem (&converse)
Definition of complementary	Definition of straight angle	Corresponding Angles Postulate (& converse)
Definition of vertical angles	Pythagorean Theorem	Consecutive Interior Angles Theorem
Definition of midpoint	Midpoint formula	(& converse)
Definition of bisect		

🏠 HOMEWORK: Problems under "Friday 11/9" on the homework sheet.

EXIT BACK OF DO NOW SHEET: **Today my level of understanding is ☺😐☹ because _____**
                                          Write a flowchart for: If $n||p$, then m$\angle$x + m$\angle$y = 180°.

x n

y p

m

SLO: I can write conditional statements in a flowchart format and include reasons for each hypothesis and conclusion.

1. If $\angle$s is supplementary to $\angle$t, then m$\angle$s + m$\angle$t = 180.

2. If a right triangle has legs a and b and hypotenuse c, then $a^2 + b^2 = c^2$

3. If m$\angle$e + m$\angle$f = 90°, then $\angle$e is complementary to $\angle$f.

4. If $\overline{HG} \cong \overline{GI}$, then G is the midpoint of $\overline{HI}$.

5. If $\angle$c is vertical to $\angle$d, then m$\angle$c = m$\angle$d.

6. If m$\angle$m is 90° then, $\angle$m is a right angle.

7. If a||b, then $\angle$s $\cong$ $\angle$r.

8. If a||b, then $\angle$h $\cong$ $\angle$z.

9. If n||p, then $\angle$a $\cong$ $\angle$b.

10. If q||r, then $\angle$k $\cong$ $\angle$d.

11. If $\angle$k $\cong$ $\angle$d, then q||r.

12. If $\overrightarrow{LM}$ bisects $\overline{AB}$ at C, then $\overline{AC} \cong \overline{CB}$.

13. If $\overline{CD} \cong \overline{EF}$, then CD = EF.

14. If $\overrightarrow{TY}$ bisects $\angle$STA then $\angle$STY $\cong$ $\angle$ATY.

15. If $\overline{JK}$ has endpoints J(7,9) and K(-7,11) then midpoint M has coordinates (0,10)

16. If $\angle$d $\cong$ $\angle$w then a||b.