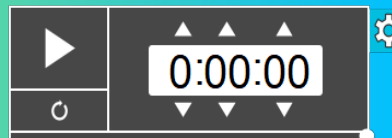


Friday 2/28/20



1. Put your phones/earbuds away.
2. Grab Notes for Today, begin p.1, "Assumptions" & "Drawing Conclusions"
3. Take out your HW

Jul 31-9:37 PM

**What am I learning today?**

**Learning Objective 2B.1**

How to use two-column proofs.

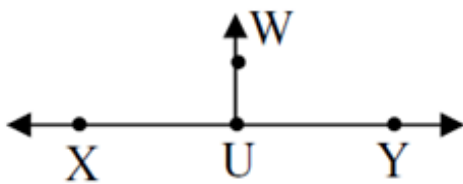
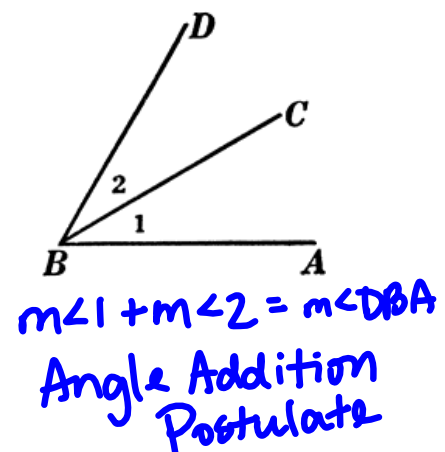
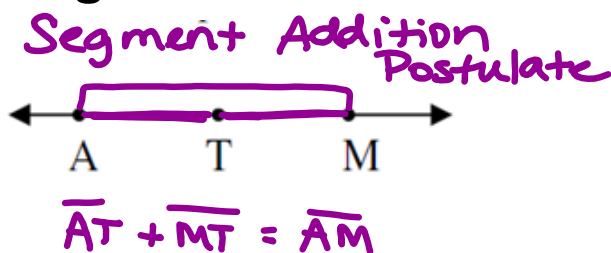
Jul 31-6:18 PM

## What will I do to show that I have learned it?

I can...Use properties, theorems, and mathematical definitions to help complete "statements" and "reasons" in a proof

Jul 31-6:18 PM

What can we assume about the following diagrams?



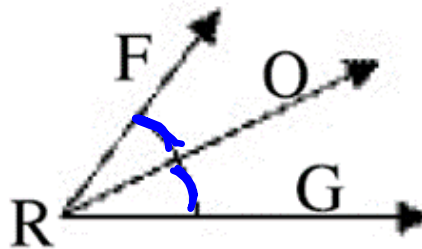
## Drawing Conclusions



Given: M is the midpoint of AB

Conclusion:  $\overline{AM} \cong \overline{BM}$

Why? Definition of Midpoint



Given: RO bisects Angle FRG

Conclusion:  $\angle FRO \cong \angle ORG$

Why? Def. of Bisect



**Given:** Angle DAY and Angle YAK are a linear pair

**Conclusion:**  $m\angle DAY + m\angle YAK = 180^\circ$

Why? Def. of Linear Pair

**Given:**  $\angle GFH \cong \angle IFH$

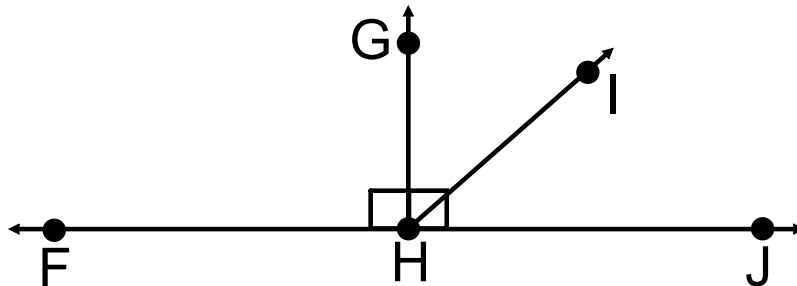
**Prove:**  $m\angle GFH = m\angle IFH$

Why? Def. of Congruence

Given:  $HF = PM$

Prove:  $HF \cong PM$

Why? Def. of Congruence



Given:  $\angle GHF$  is a right angle.

Prove:  $m\angle GHF = 90^\circ$

**Statements**

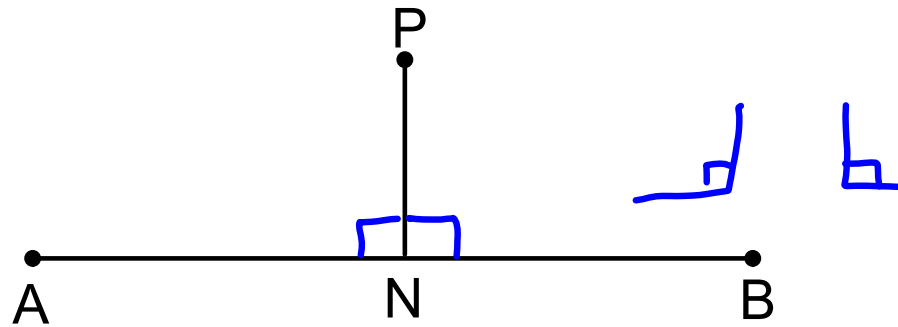
1.  $\angle GHF$  is a right angle

2.  $m\angle GHF = 90^\circ$

**Reasons**

1. Given

2. Def. of Right angle



Given:  $PN \perp AB$

Prove:  $\angle ANP$  and  $\angle BNP$  are right angles

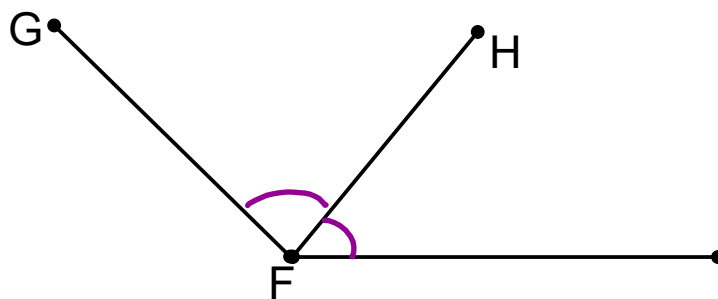
### Statements

1.  $\overline{PN} \perp \overline{AB}$
2.  $\angle ANP$  and  $\angle BNP$  are right angles.

### Reasons

1. Given
2. Def. of Perpend

Feb 12-7:54 AM



Given: HF bisects  $\angle GFI$

Prove:  $m\angle GFH = m\angle IFH$

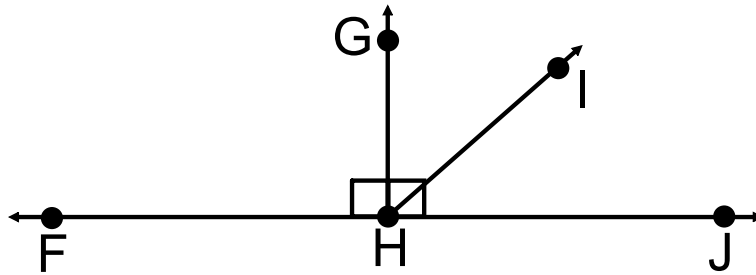
### Statements

1. HF bisects  $\angle GFI$
2.  $\angle GFH \cong \angle IFH$
3.  $m\angle GFH = m\angle IFH$

### Reasons

1. Given
2. Def. of Bisect
3. Def. of Congruence

Feb 12-9:05 AM

Use EXPLANATIONS!

Given:  $\angle GHF$  and  $\angle GHJ$  are right angles

Prove:  $\angle GHF \cong \angle GHJ$

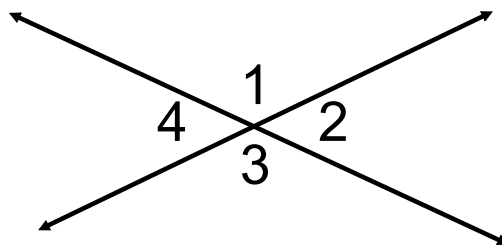
**Statements**

1.  $\angle GHF$  &  $\angle GHJ$  are right angles.
2.  $\angle GHF \cong \angle GHJ$

**Reasons**

1. Given
2. All right angles are congruent

Feb 12-7:55 AM



Given:  $\angle 4$  and  $\angle 2$  are vertical angles.

Prove:  $\angle 4 \cong \angle 2$

**Statements**

1.  $\angle 4$  &  $\angle 2$  are vert. angles.
2.  $\angle 4 \cong \angle 2$

**Reasons**

1. Given
2. Vertical Angles are congruent.

Feb 12-7:55 AM

Use **OTHER PROPERTIES/THEOREMS/POSTULATES!**

Substitution Property	Replaces a number or a piece of an expression
Transitive Property	If $a = b$ and $b = c$ , then $a = c$
Segment Addition Postulate	Two smaller segments added together creates a bigger segment
Angle Addition Postulate	Two smaller adjacent angles added together creates a bigger angle

Given:  $\angle 4 \cong \angle 2$  and  $\angle 2 \cong \angle 5$

Prove:  $\angle 4 \cong \angle 5$

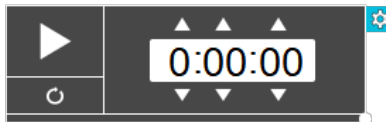
**Statements**

1.  $\angle 4 \cong \angle 2$
2.  $\angle 2 \cong \angle 5$
3.  $\angle 4 \cong \angle 5$

**Reasons**

1. Given
2. Given
3. Transitive Prop.

Feb 12-7:55 AM

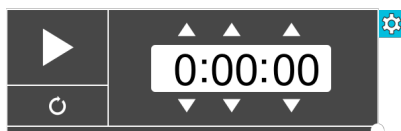
**Activity:**

Complete the classwork with cutting and gluing all of the statements and reasons for each "baby" proof



## Classwork:

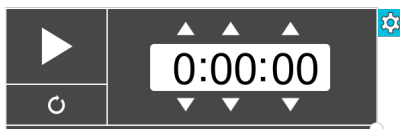
Complete the classwork using properties, definitions, theorems, and postulates to draw *CONCLUSIONS* and finish *two-column proofs*



Jul 31-9:12 PM

## Homework:

Complete the proofs HW using properties, definitions, theorems, and postulates to draw *CONCLUSIONS* and finish *two-column proofs*



Jul 31-9:12 PM