1-5 Angle
Relationships

## Adjacent Angles:

* Angles that are next to each other.
* One ray has to belong to both angles.
* The angles need to belong to the same plane.



## Vertical Angles:

* Angles that are formed by intersecting lines.
* Vertical angles are always congruent.



## Linear Pair:

* Two angles with a pair of noncommon sides.
* When done graphing, the two angles will form a line.


Complementary Angles:

* Two angles that have a sum of $90^{\circ}$.
* Angles may or may not be adjacent.

Supplementary Angles:

* Two angles that have a sum of $180^{\circ}$.
* Angles may or may not be adjacent.


## Perpendicular Lines-

* Two lines that intersect and will form

4 right angles.

* They MUST form a $90^{\circ}$ angle.
*Symbol $\perp$
$\operatorname{Line} E \perp \operatorname{Line} A$


When referring to a measure of an angle it will be written as $\mathrm{m} \angle \mathrm{A}$.

You can NEVER ASSUME anything, you need to go by what you are given. If something looks perpendicular but it is not stated in the directions or on the figure, then do not assume that it is.


1. Find $x$ so that Line $K O \perp$ Line $H M$.

2. Can each statement be determined by this figure? Explain.
a. $\mathrm{m} \angle \mathrm{VYT}=90^{\circ}$.

Yrs because $\left\langle X Y_{V}\right.$ and $\angle V Y t$
are a linear pain
b. $\angle T Y W \& \angle T Y U$ are
supplementary.
Yes, because they are a linear T. St
c. $\angle \mathrm{VYW} \& \angle \mathrm{TYS}$ are adjacent angles. no, no common ray

