Chapter 3.6 Using ⊥ and || lines

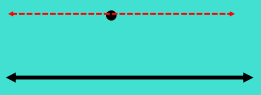
Construction - is a geometric drawing using a set of tools.

You need:
- compass
- straightedge
- paper

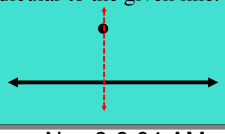
Open your book to p. 143

Nov 3-9:00 AM

Postulate 10: If there is a line and a point not on the line, then there is exactly one line through the point parallel to the line.



Postulate 11: If there is a line and a point not on the line, then there is exactly one line through the point perpendicular to the given line.



Nov 3-9:04 AM

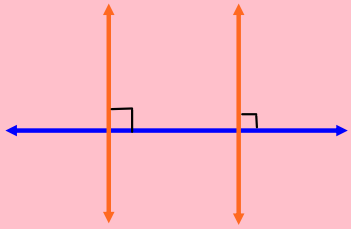
Theorem 3.11: If 2 lines are || to the same line, then they are || to each other.

If q || r and r || s, then q || s.

(think of transitive property, but for || lines.)

Nov 3-9:06 AM

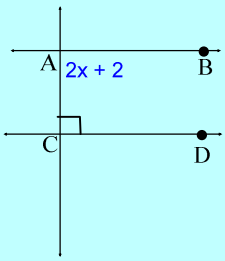
Theorem 3.12: In a plane, if 2 lines are ⊥ to the same line, then they are || to each other.



Nov 3-9:09 AM

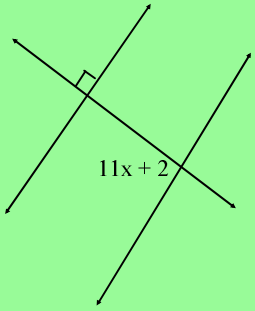
Ex 1a) Using properties of || lines.

Find the value of x that makes $\overleftrightarrow{AB} \parallel \overleftrightarrow{CD}$.



Nov 3-9:13 AM

Ex1b) Find the value of x that makes $\overleftrightarrow{FG} \parallel \overleftrightarrow{HJ}$.



Nov 3-9:20 AM

Ways to show that 2 lines are ||:

- Corresponding <'s Converse
- Alternate Interior <'s Converse
- Alternate Exterior <'s Converse
- Same-Side Interior <'s Converse
- Show both || lines are || to a 3rd line
- Show that both lines ⊥ to a 3rd line

Nov 3-9:22 AM