

Cornell Notes

Name Adriana Lopez

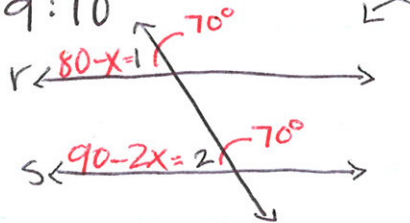
Date 9/29/11

Topic Constructions

Class/
Subject Geometry per. 2

DO NOW :
8:55

Check Homework
9:10



$\angle 1 \neq \angle 2$ corresponding
 \angle 's

9:25 Activity
Constructions

Why did Orgo Iron his
four-leaf clover?
(see worksheet)

$$\begin{aligned} 28) \quad m\angle 1 &= m\angle 2 \\ 80-x &= 90-2x \\ 80+x &= 90 \\ x &= 10 \end{aligned}$$

$$\begin{aligned} m\angle 1 &= 80-x = 80-10 = 70^\circ \\ m\angle 2 &= 90-2(10) = 90-20 = 70^\circ \end{aligned}$$

$$\begin{aligned} 30) \quad m\angle 1 &= m\angle 2 \\ 40-4x &= 50-8x \\ 40+4x &= 50 \\ 4x &= 10 \\ x &= 2.5 \end{aligned}$$

$$\begin{aligned} m\angle 1 &= 40-4x = 40-4(2.5) = 40-10 = 30^\circ \\ m\angle 2 &= 50-8x = 50-8(2.5) = 50-20 = 30^\circ \end{aligned}$$

using "Can you construct
these?" worksheet

3) Construct a perpendicular to
a line from a pt. off the line.
*USE COMPASS!

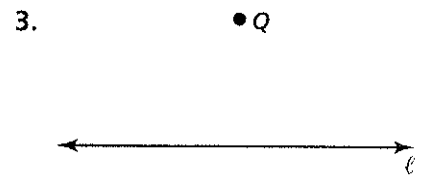
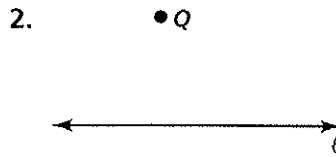
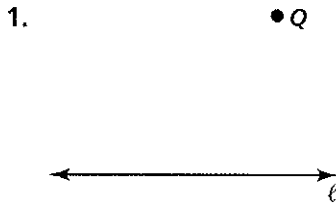
QUIZ TOMORROW

Assignment #20: Practice 3-8
complete 1-9 only on another sheet

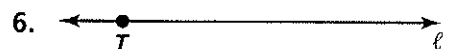
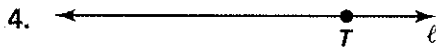
Practice 3-8

Constructing Parallel and Perpendicular Lines

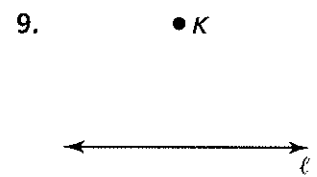
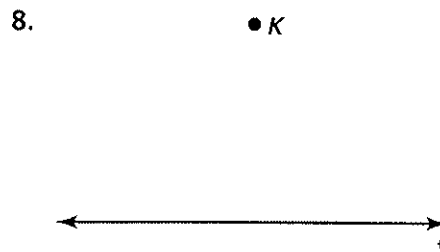
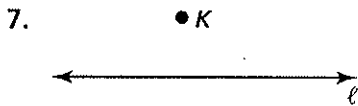
Construct a line perpendicular to line l through point Q .



Construct a line perpendicular to line l at point T .

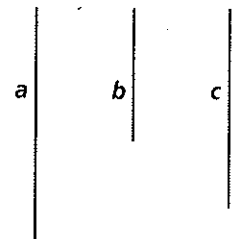


Construct a line parallel to line l and through point K .



For Exercises 10–15, use the segments at the right.

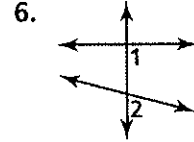
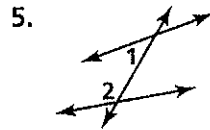
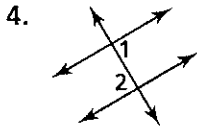
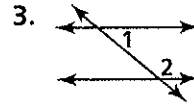
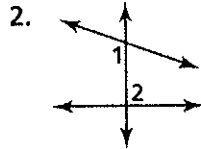
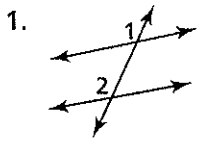
10. Construct a quadrilateral with one pair of parallel sides of lengths a and b .
11. Construct a quadrilateral with one pair of parallel sides of lengths b and c .
12. Construct a square with side lengths of b .
13. Construct a right triangle with leg lengths of a and c .
14. Construct a right triangle with leg lengths of b and c .
15. Construct an isosceles right triangle with leg lengths of a .



Practice 3-1

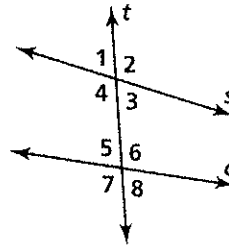
Properties of Parallel Lines

Classify each pair of angles as *alternate interior angles*, *same-side interior angles*, or *corresponding angles*.

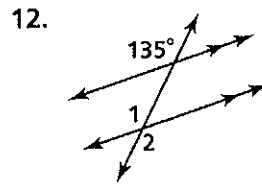
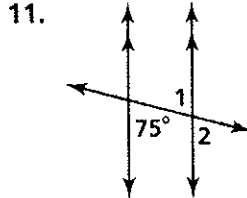
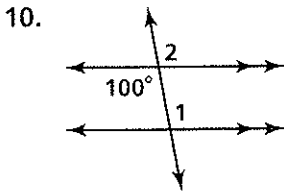


Use the figure on the right to answer Exercises 7–9.

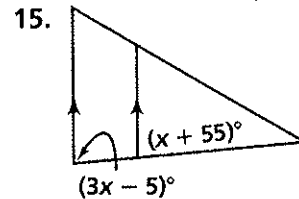
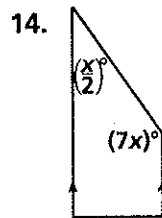
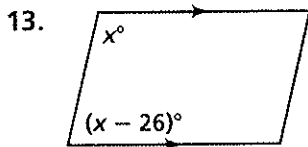
- Name all pairs of corresponding angles formed by the transversal t and lines s and c .
- Name all pairs of alternate interior angles formed by the transversal t and lines s and c .
- Name all pairs of same-side interior angles formed by the transversal t and lines s and c .



Find $m\angle 1$ and then $m\angle 2$. Justify each answer.



Algebra Find the value of x . Then find the measure of each angle.



16. **Developing Proof** Supply the missing reasons in this two-column proof.

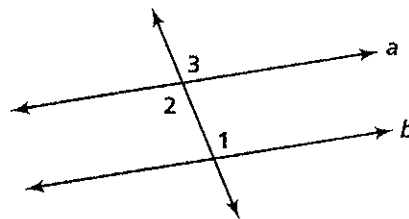
Given: $a \parallel b$
 Prove: $\angle 1 \cong \angle 3$

Statements

- $a \parallel b$
- $\angle 1 \cong \angle 2$
- $\angle 2 \cong \angle 3$
- $\angle 1 \cong \angle 3$

Reasons

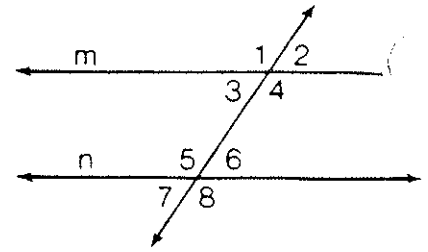
- Given
- a. ?
- b. ?
- c. ?



Why Did Orgo Iron His Four-leaf Clover?

Circle the letter of the phrase that best completes any statement below. Write this letter in each box at the bottom of the page that contains the statement number. (The exercises refer to the figure at the right, where $m \parallel n$.)

KEEP WORKING AND YOU WILL DISCOVER THE ANSWER TO THE TITLE QUESTION.



1	Two lines that intersect at right angles are (L) parallel (N) perpendicular
2	Two lines in the same plane that never intersect are (C) parallel (K) perpendicular
3	A line that intersects two or more lines at different points, is a (E) transversal (A) bisector
4	In the figure, the angles labeled 1, 2, 7, and 8 are (B) interior angles (G) exterior angles
5	The angles labeled 3, 4, 5, and 6 are (A) interior angles (T) exterior angles
6	Pairs of angles such as those labeled 1 and 5, or 4 and 8, are (I) corresponding angles (U) adjacent angles
7	The angles labeled 3 and 6 are (K) alternate interior angles (D) alternate exterior angles
8	The angles labeled 4 and 5 are (W) alternate interior angles (P) alternate exterior angles
9	If two parallel lines are cut by a transversal, then corresponding angles are (T) supplementary (R) congruent
10	If $m\angle 1$ is 125° , then $m\angle 5$ is (S) 60° (H) 125°
11	Alternate interior angles are (U) congruent (O) complementary
12	If $m\angle 3$ is 60° , then $m\angle 6$ is (B) 40° (L) 60°
13	If $m\angle 3$ is 60° , then $m\angle 8$ is (S) 120° (T) 60°
14	When two lines in a plane are cut by a transversal, and if corresponding angles are congruent, then the two lines are (F) intersecting (P) parallel

10	3	8	5	13	14	9	3	13	13	6	1	4	10	6	13	12	11	2	7
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