

1. Follow Along while your teacher discusses the Part 1 Intro and Example information below....

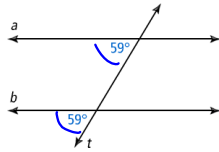
Intro

The symbol \parallel means "is parallel to." If line m is parallel to line n , you write $m \parallel n$.

Example

Can you conclude that $a \parallel b$? Justify your reasoning.

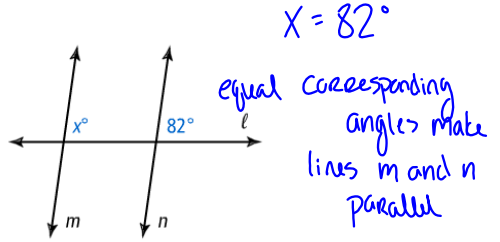
Yes, equal corresponding angles
 $\therefore a \parallel b$



2. Complete Example #1.

Got It?

For which value of x is line m parallel to line n ?



3. Discuss the Example 2 INTRO.

Intro

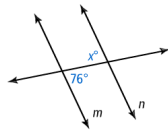
The reasoning that you use to decide whether two lines are parallel based on knowing whether corresponding angles or alternate interior angles are congruent is called deductive reasoning. **Deductive reasoning** is a process of reasoning logically from given facts to a conclusion.

4. Complete Example #2.

Got It?

For which value of x is line m parallel to line n ?

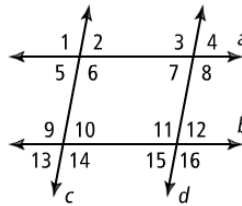
$x = 76^\circ$ to have equal Alt. Int. \angle 's. Making $m \parallel n$.



5. Help your teacher complete the Example 3 Activity.....

Example

Which congruence statements justify $a \parallel b$ or $c \parallel d$?

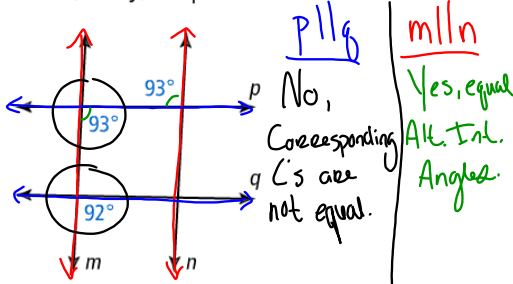


$\angle 1 = \angle 9$ C. \angle 's $\angle 4 = \angle 12$ C. \angle 's $\angle 6 = \angle 9$ Alt. Int. \angle 's $\angle 5 = \angle 10$ Alt. Int. \angle 's	$\angle 2 = \angle 7$ Alt. Int. \angle 's $\angle 1 = \angle 3$ C. \angle 's $\angle 13 = \angle 15$ C. \angle 's $\angle 5 = \angle 7$ C. \angle 's
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6. Complete Example #3

Got It?

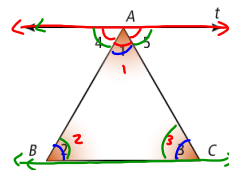
Which lines, if any, are parallel?



11.3 Notes "Interior Angles of Triangles"

1. Study the Intro below...

The sum of the measures of the interior angles of a triangle is 180° .



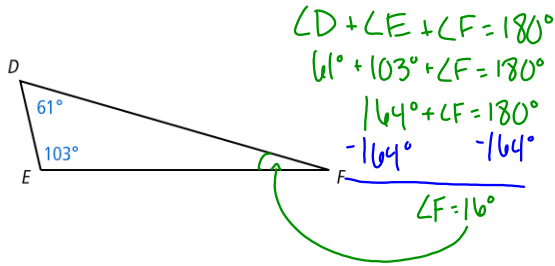
Alt. Int. \angle 's
 $m\angle 4 = m\angle 2$
 $m\angle 5 = m\angle 3$

$m\angle 4 + m\angle 1 + m\angle 5 = 180^\circ$ \leftarrow straight line
 $m\angle 2 + m\angle 1 + m\angle 3 = 180^\circ$ \leftarrow triangle

2. Complete Example #1

Got It?

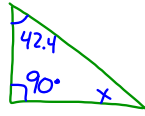
What is $m\angle F$?



3. Complete Example #2.

Got It?

The measure of one of the acute angles in a right triangle is 42.4° . What is the measure of the other acute angle?

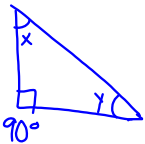


$132.4^\circ + x = 180^\circ$
 $x = 47.6^\circ$

4. Complete Example #3.

Got It?

Make a conjecture about the sum of the measures of the acute angles in a right triangle. Justify your reasoning.

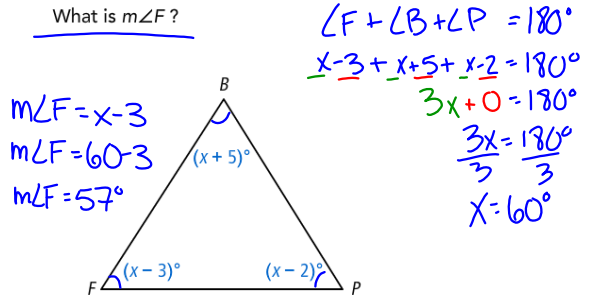


$x + y + 90^\circ = 180^\circ$
 $x + y = 90^\circ$

5. Complete Example #4.

Got It?

What is $m\angle F$?



Close and Check.

What is the measure of EVERY angle?

