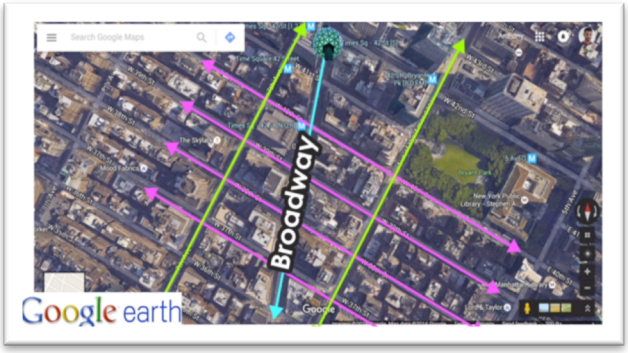
Name: _____

Lesson Guide

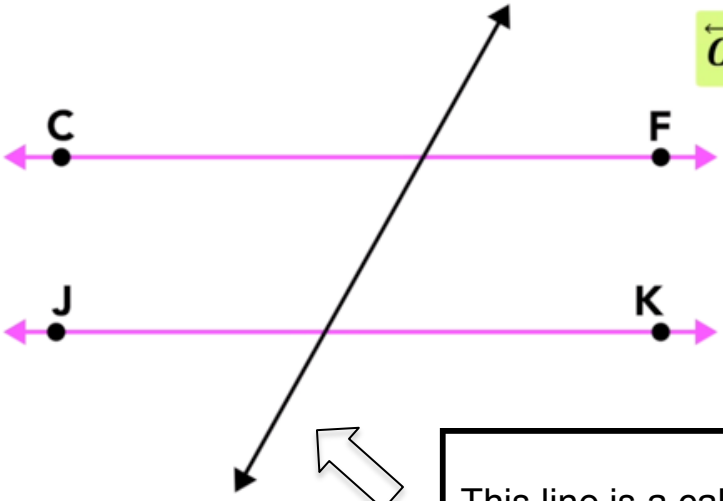
This lesson guide accompanies the following video lesson:



Parallel Lines and Transversals

▸ Key Information:

Parallel lines never _____.



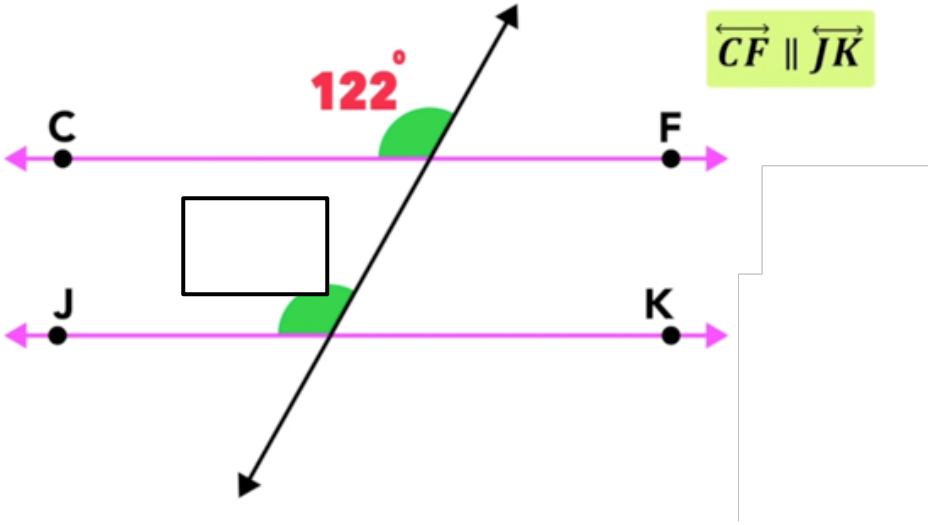
$\overleftrightarrow{CF} \parallel \overleftrightarrow{JK}$

The ∥ symbol means _____.

This line is a called a _____

▸ Angle Relationship #1

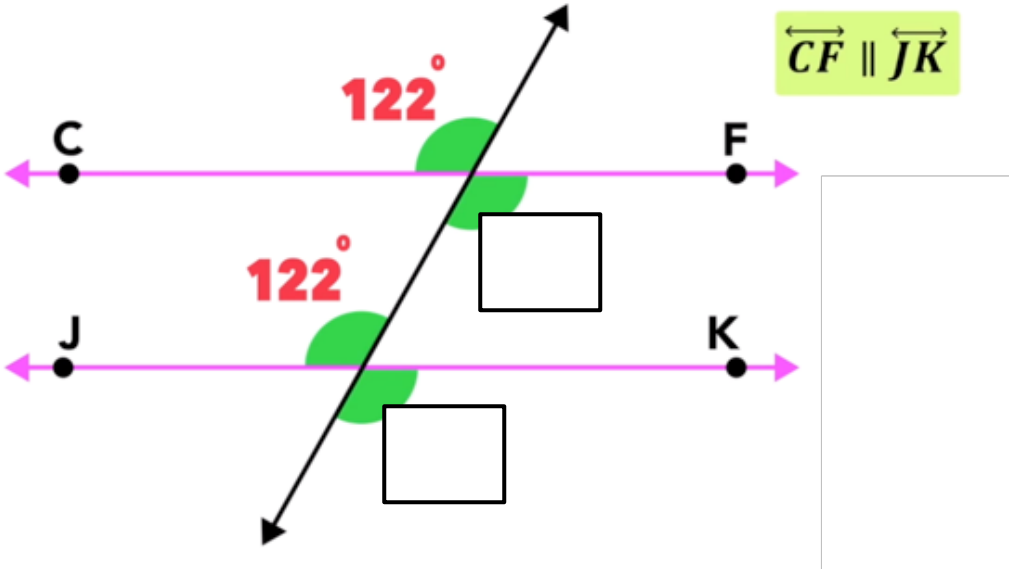
Corresponding Angles Are Congruent



$\overleftrightarrow{CF} \parallel \overleftrightarrow{JK}$

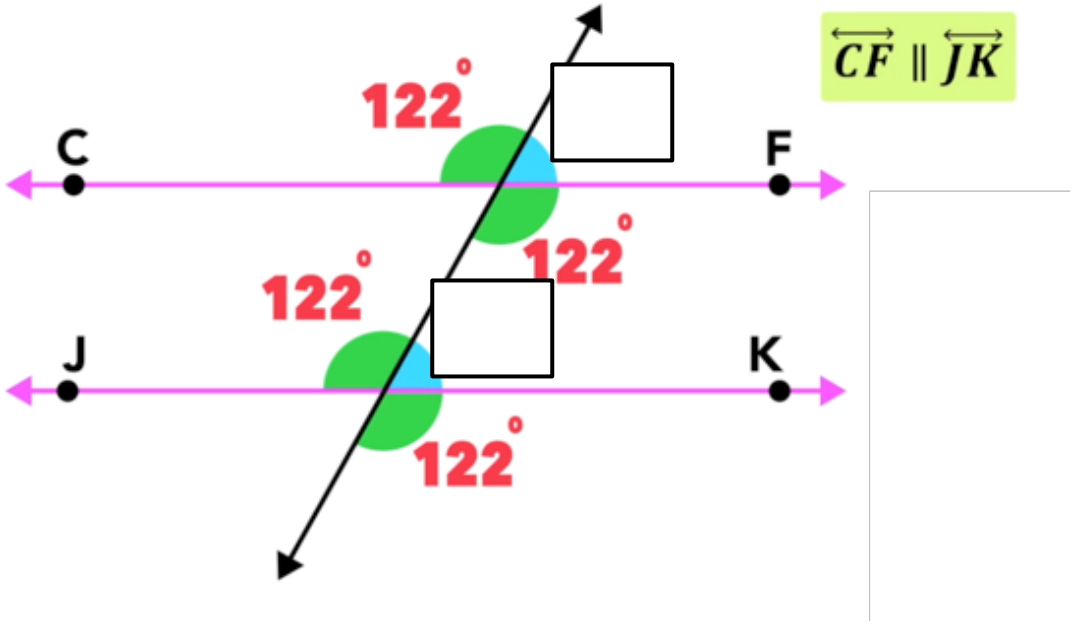
▶ Angle Relationship #2

Vertical Angles Are Congruent

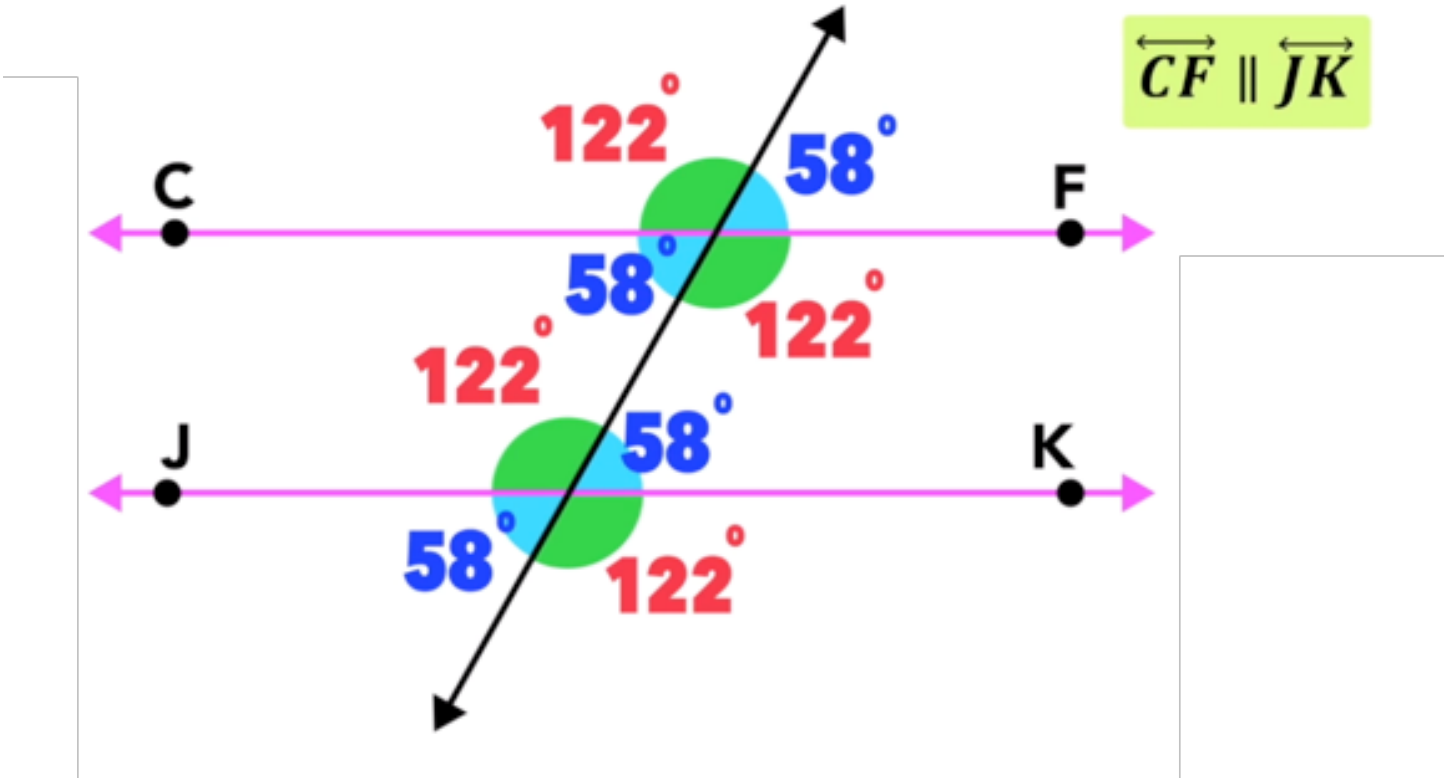


▶ Angle Relationship #3

Supplementary Angles Have a Sum of 180 Degrees



And since _____ angles are congruent, you can complete the diagram as follows:



Draw 3 Conclusions:

1.)

2.)

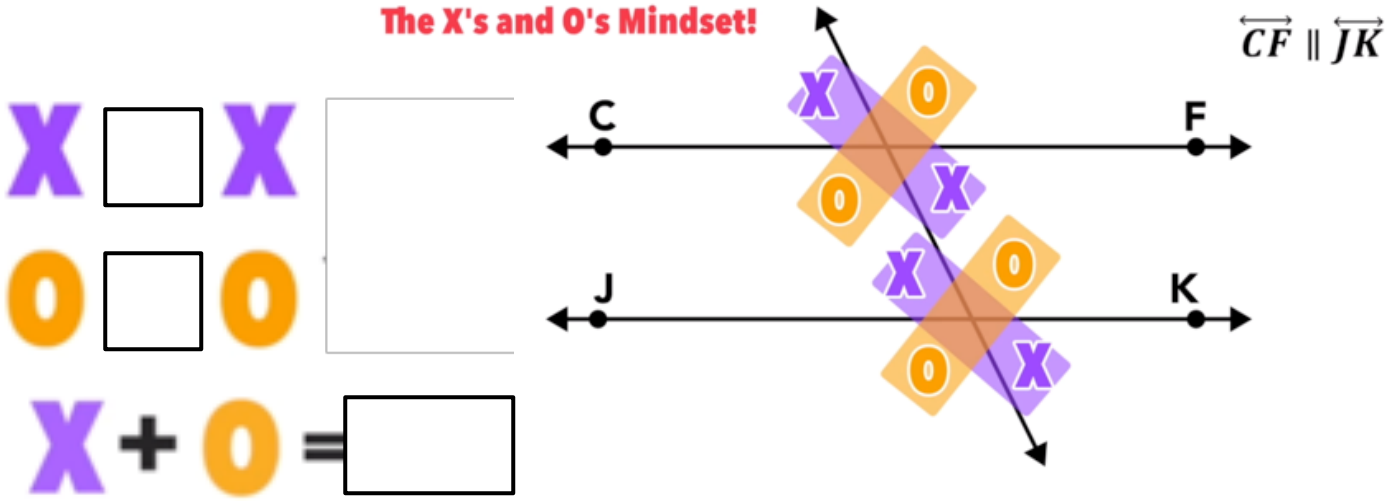
3.)

▶ The X's and O's Mindset

xoxo

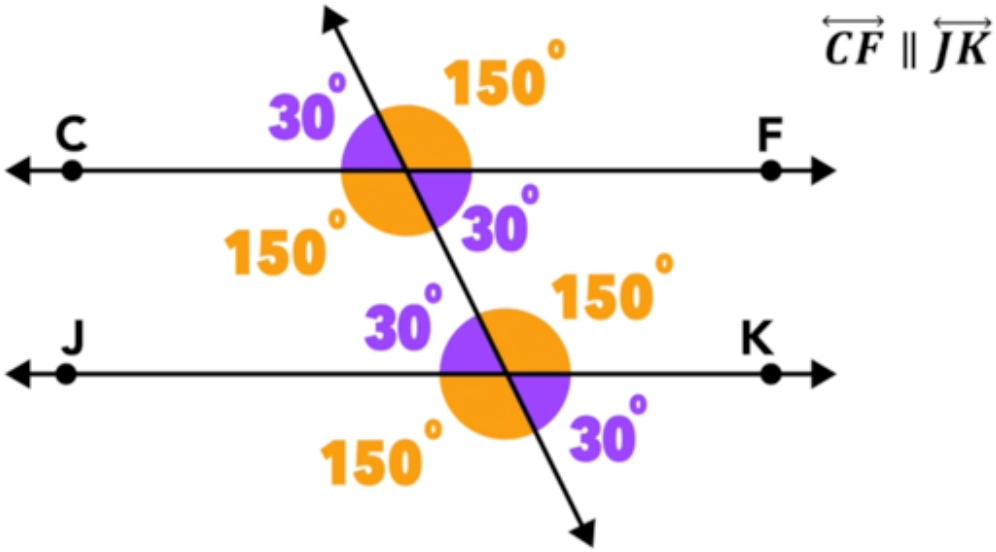
The following relationship is true for any parallel lines cut by a transversal:

If you label all of the acute angles with the letter *x* and all of the obtuse letters with the letter *o*.:



Example 01:

Label x's and o's in the diagram below and complete the statements:



All of the **acute** angles labeled with an *x* are _____ and equal _____°

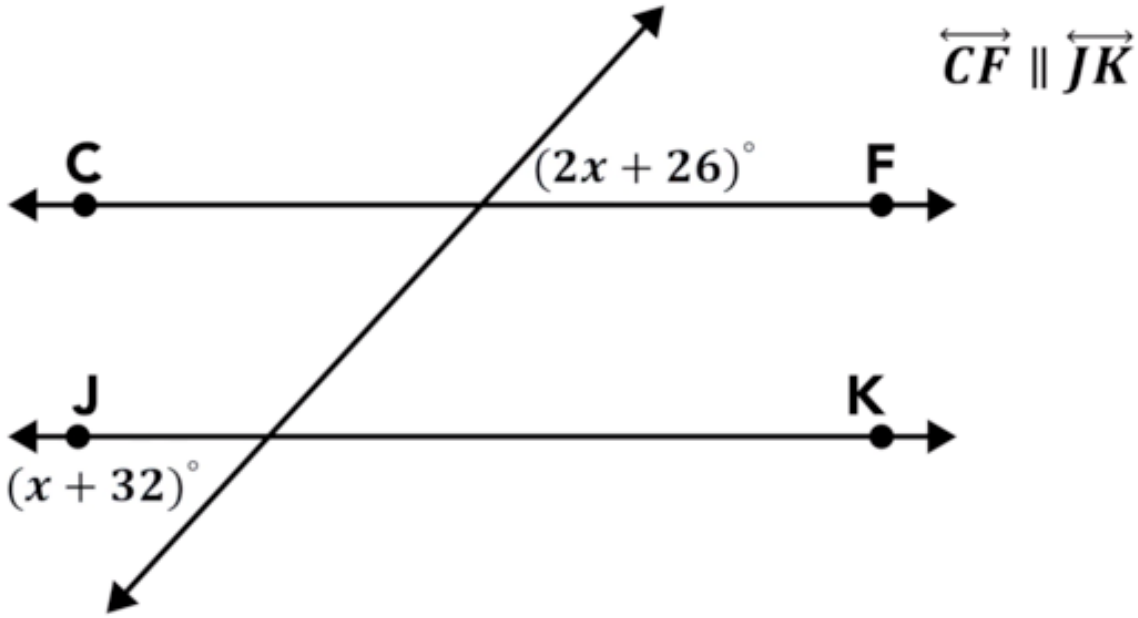
All of the **obtuse** angles labeled with an *o* are _____ and equal _____°

Any pair of an *x* angle and an *o* angle will have a sum of _____°

This is true because, _____ + _____ = 180.

Example 02:

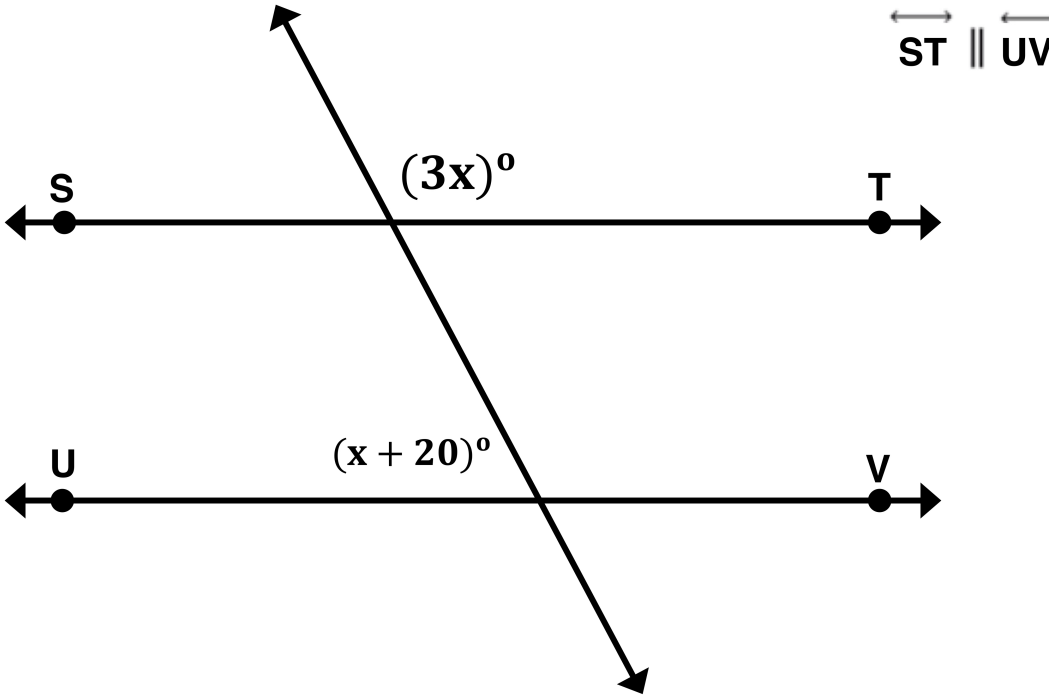
Solve for x and find the value of all of the angles in the diagram:



x = _____

Your Turn!

Solve for x and find the value of all of the angles in the diagram:



x = _____

Answer Key

Example 02: x=6, obtuse angles = 142, acute angles = 38

Your Turn: x=40, obtuse angles = 120, acute angles = 60