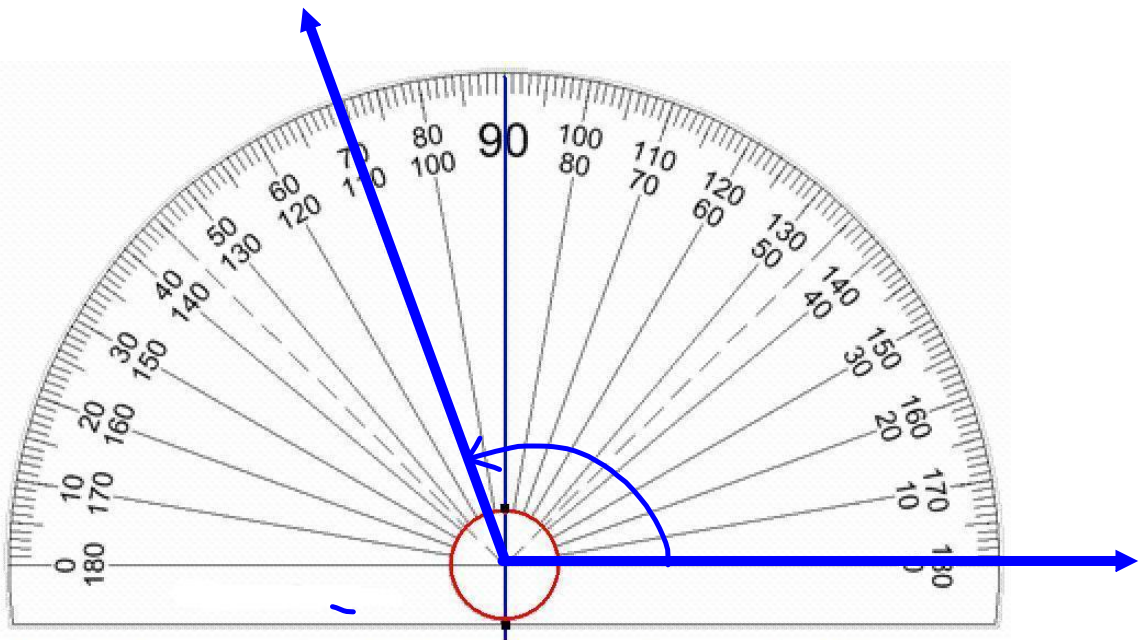


Angles

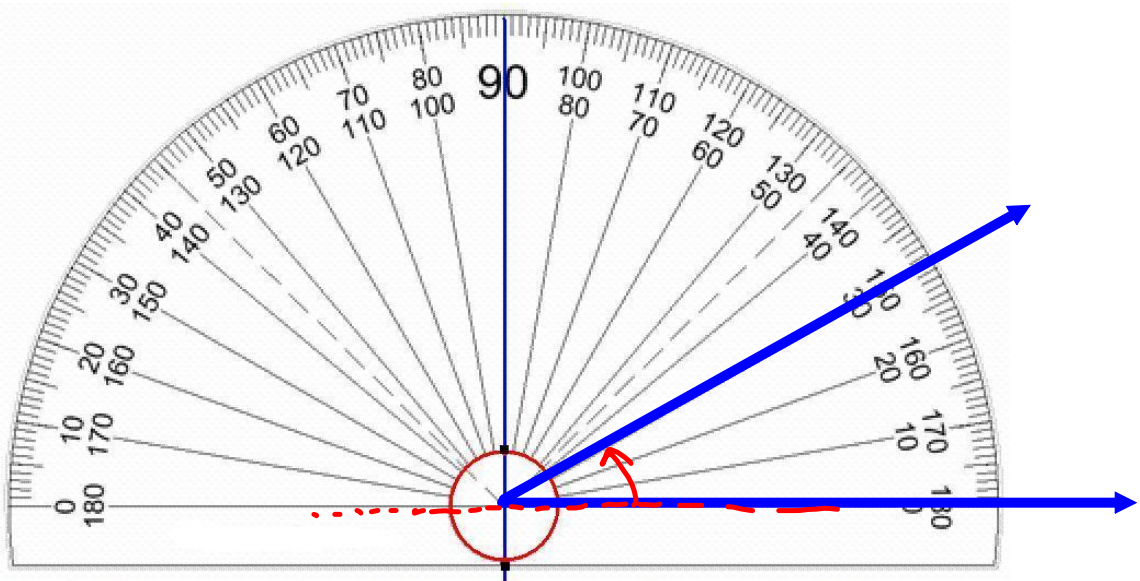


45°

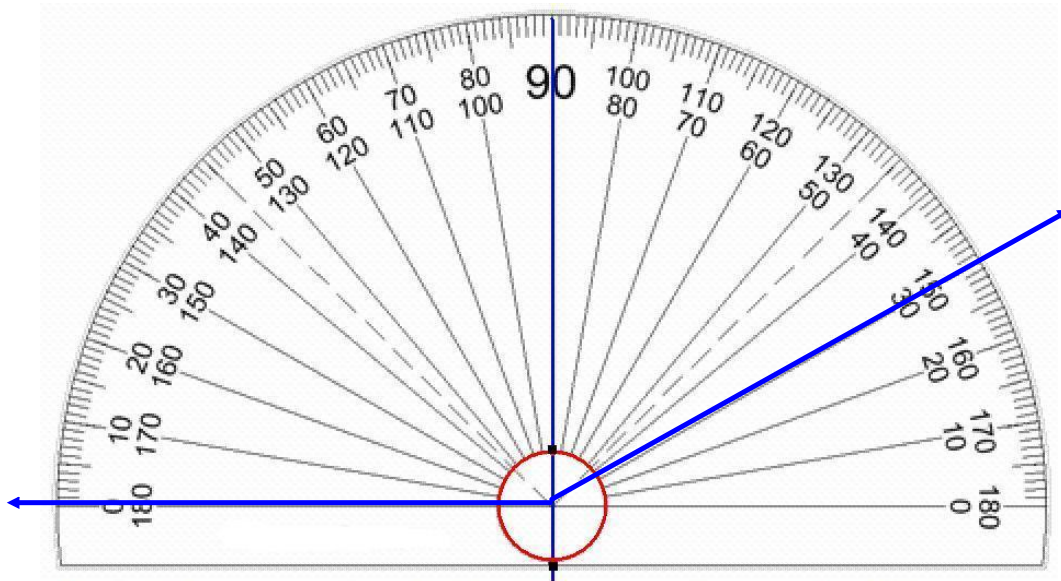
The image shows a technical drawing of a truss structure on a light green background. A white arc highlights a 45-degree angle. The drawing includes solid black lines for the truss members and a dashed line for a vertical member. The text '45°' is overlaid in white on the drawing.

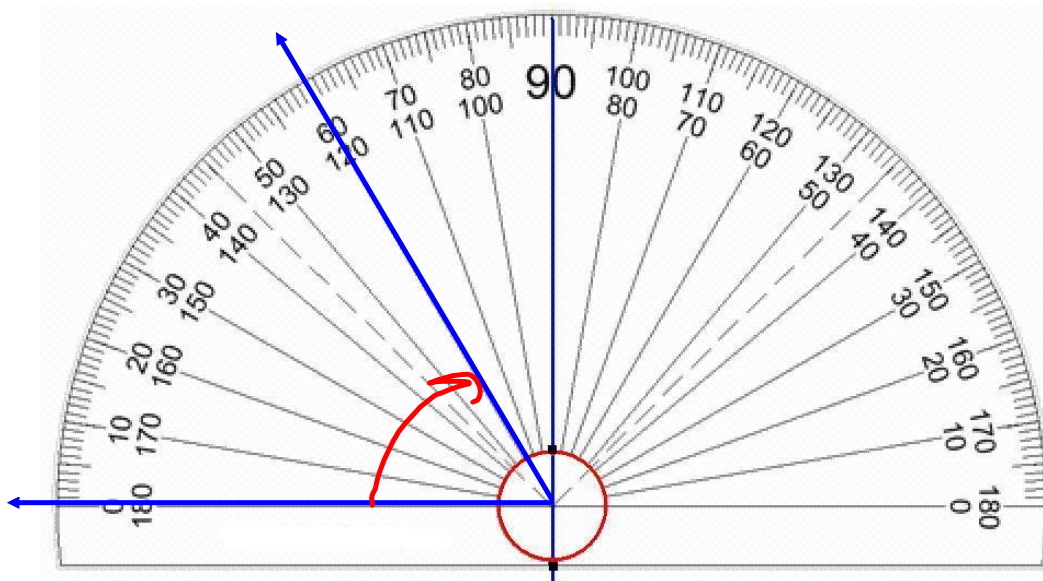


110°

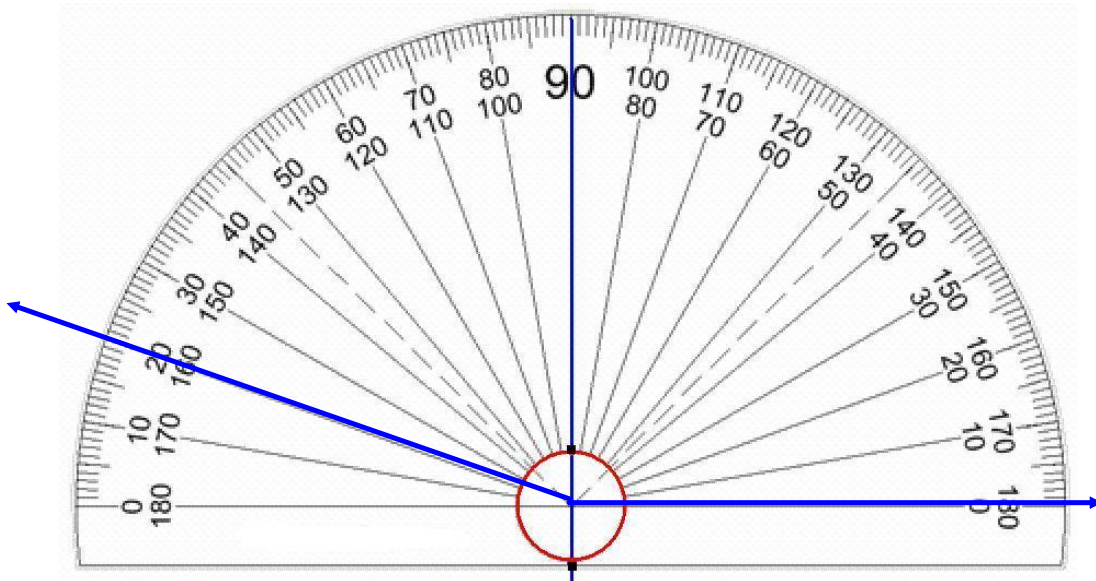


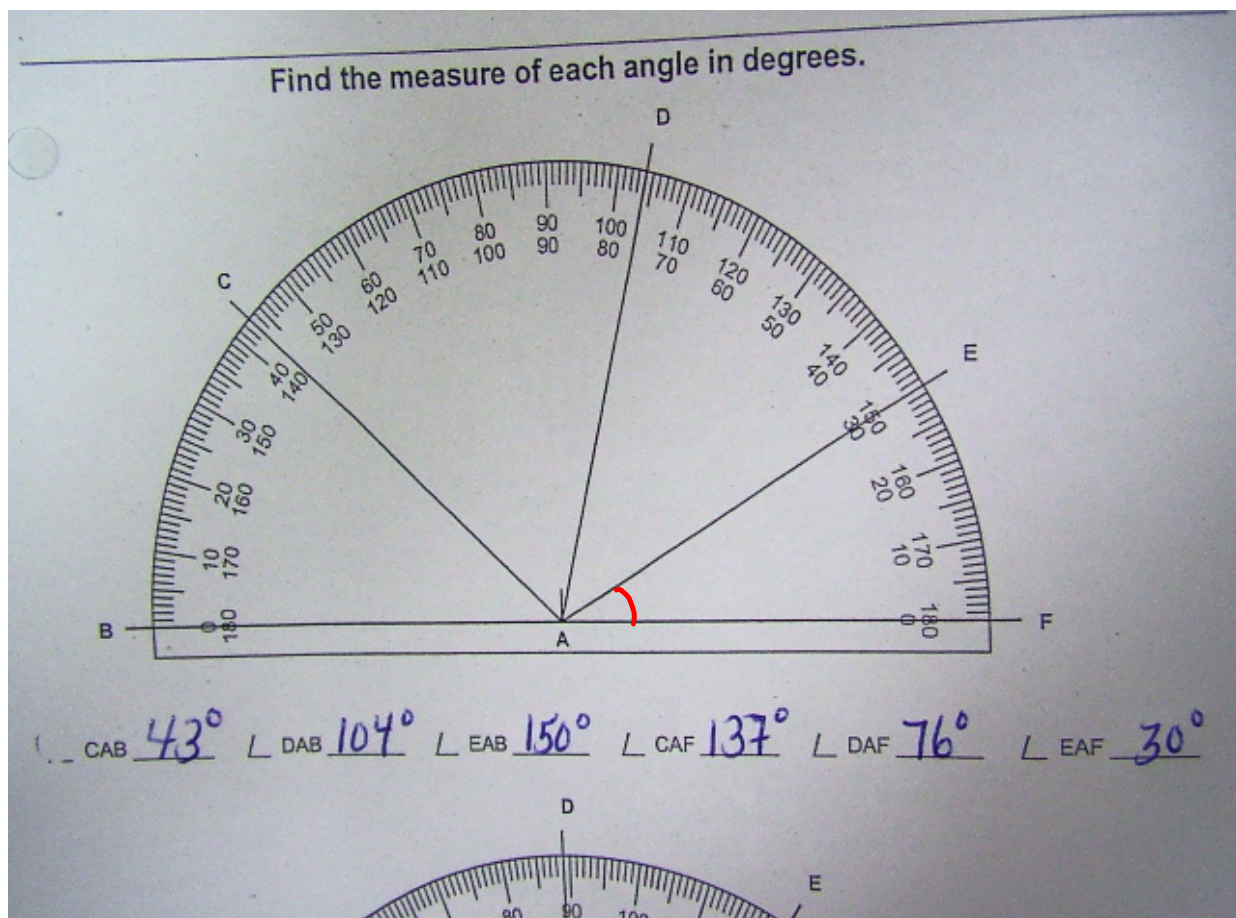
30°

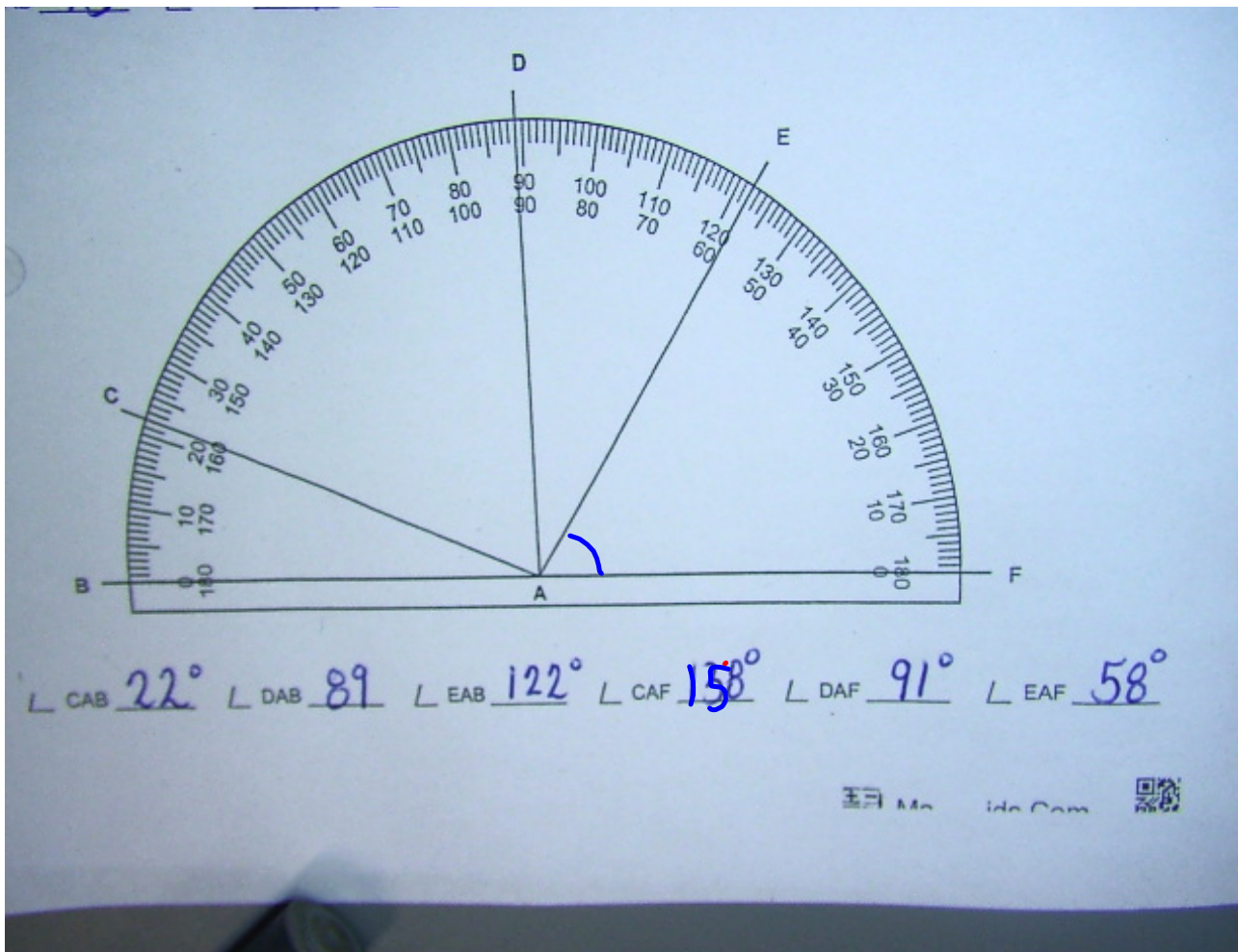




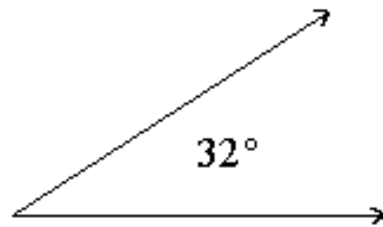
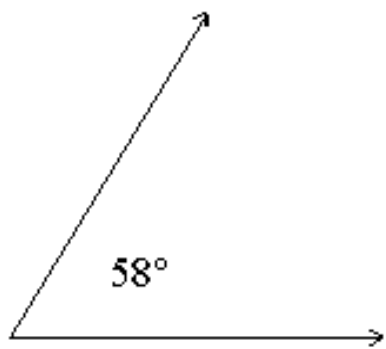
60°







These two angles are complementary.

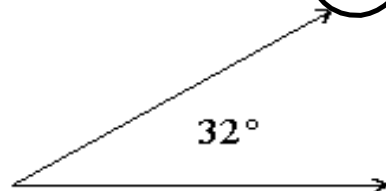
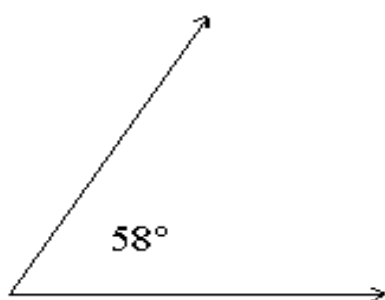


Why?



What a nice **"complement"**.

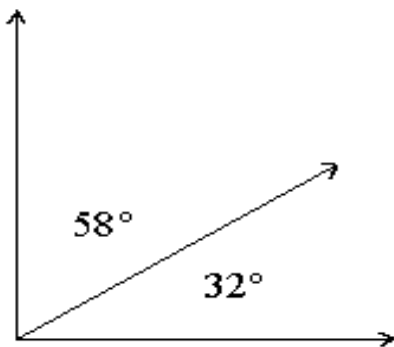
These two angles are complementary.



I wonder if anyone likes my hair?



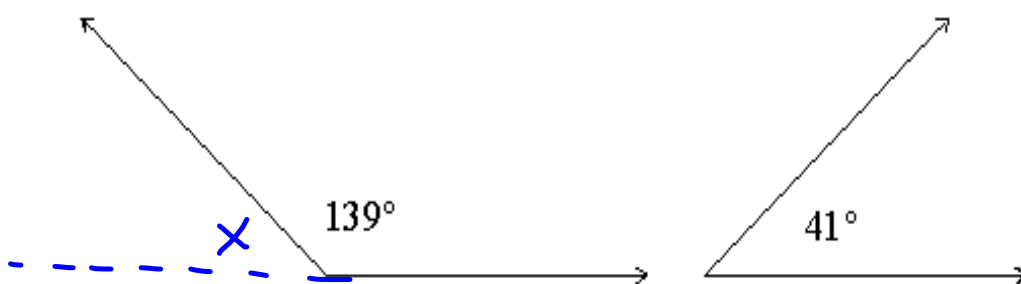
Note that these two angles can be "pasted" together to form a right angle!



$$58^\circ + 32^\circ = 90^\circ$$

Complementary angles add up to **90°** .

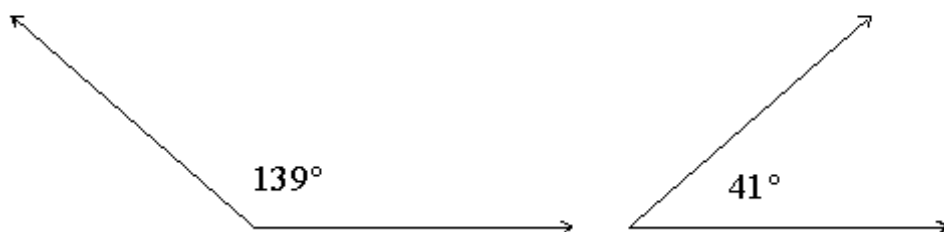
These two angles are supplementary.



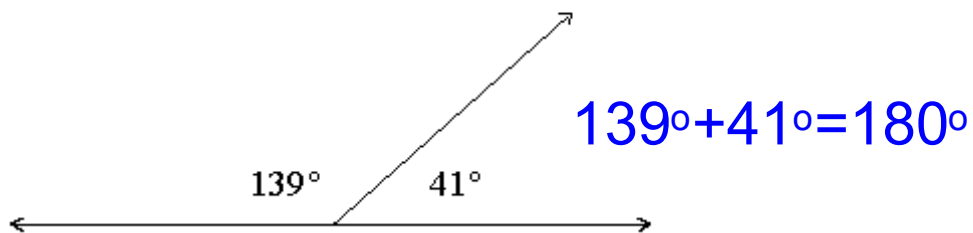
Why?



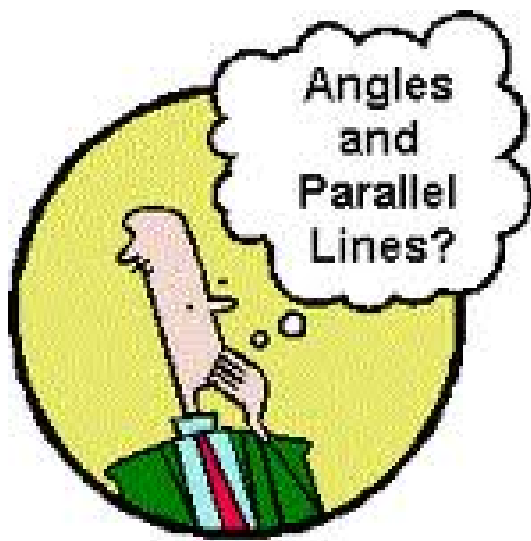
These two angles are supplementary.

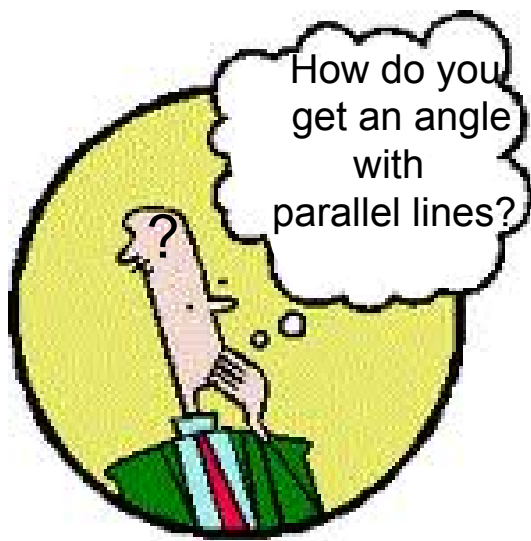


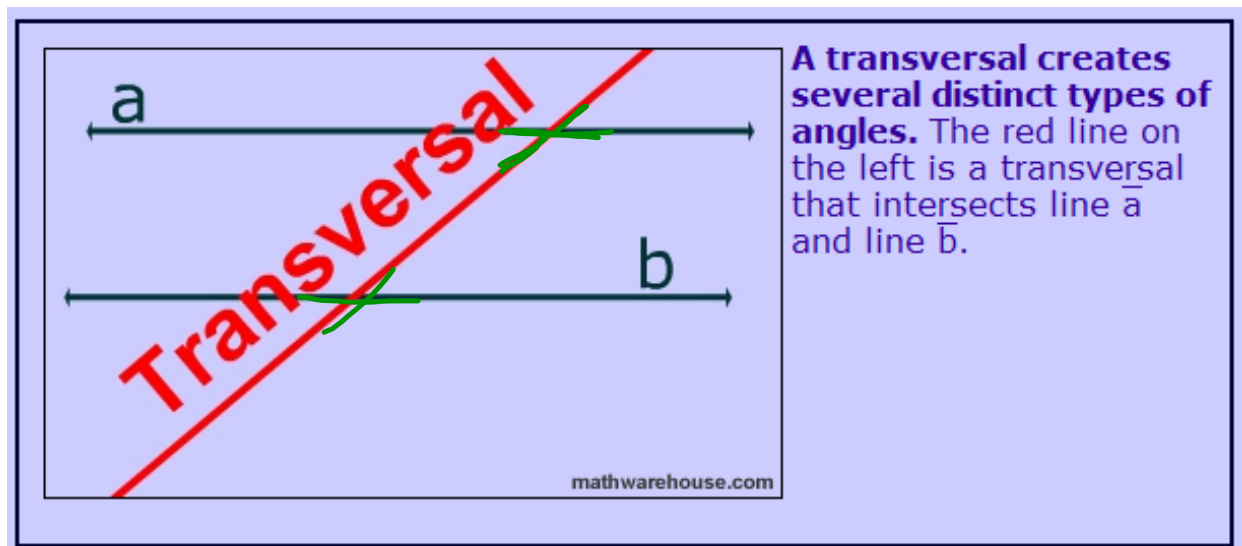
Note that these two angles can be "pasted" together to form a straight line!



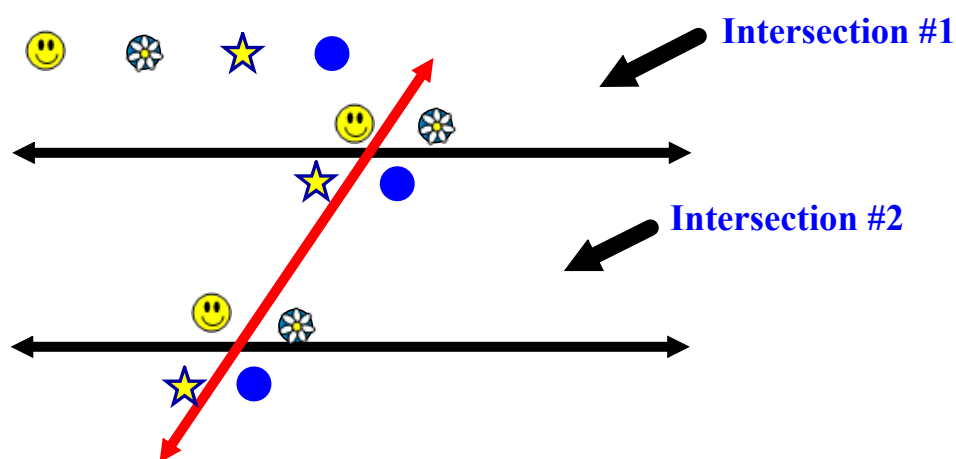
Supplementary angles add up to 180° .





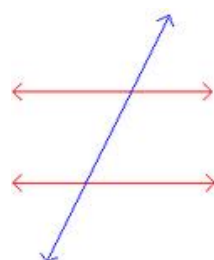
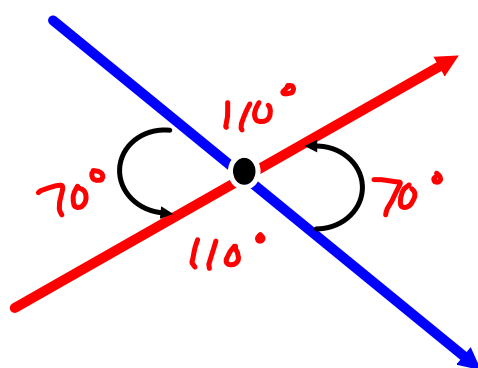


Corresponding Angles



Angles that occupy
the same relative position in
two different intersections
are equal.

Vertically Opposite Angles (X Rule)

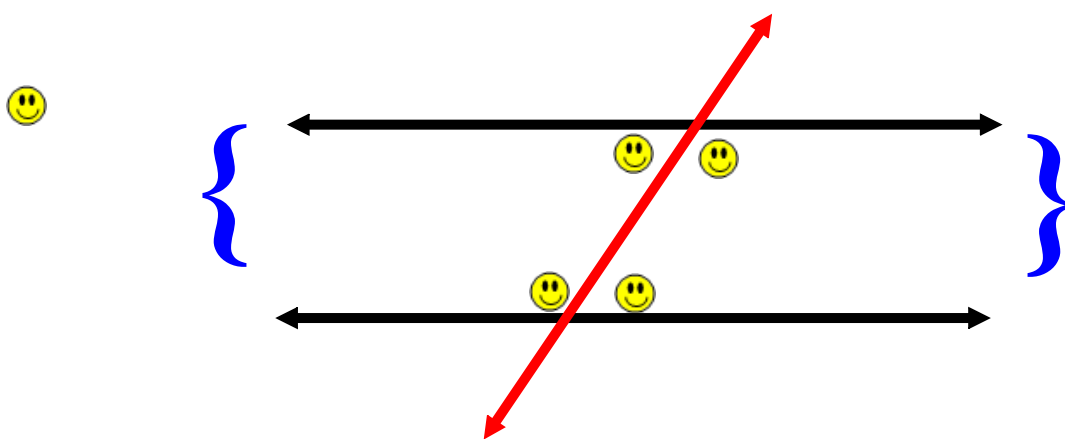


Only share a vertex!
thinking



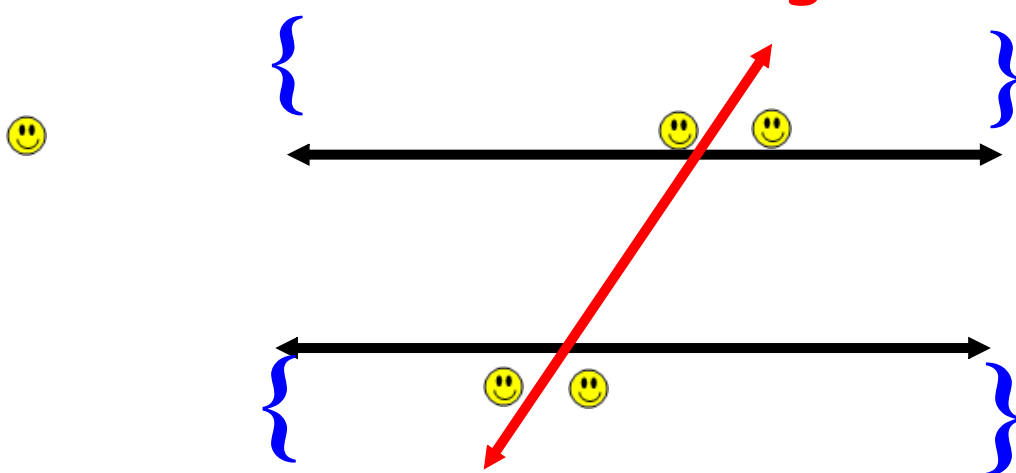
Vertically opposite
angles
are equal.

Interior Angles



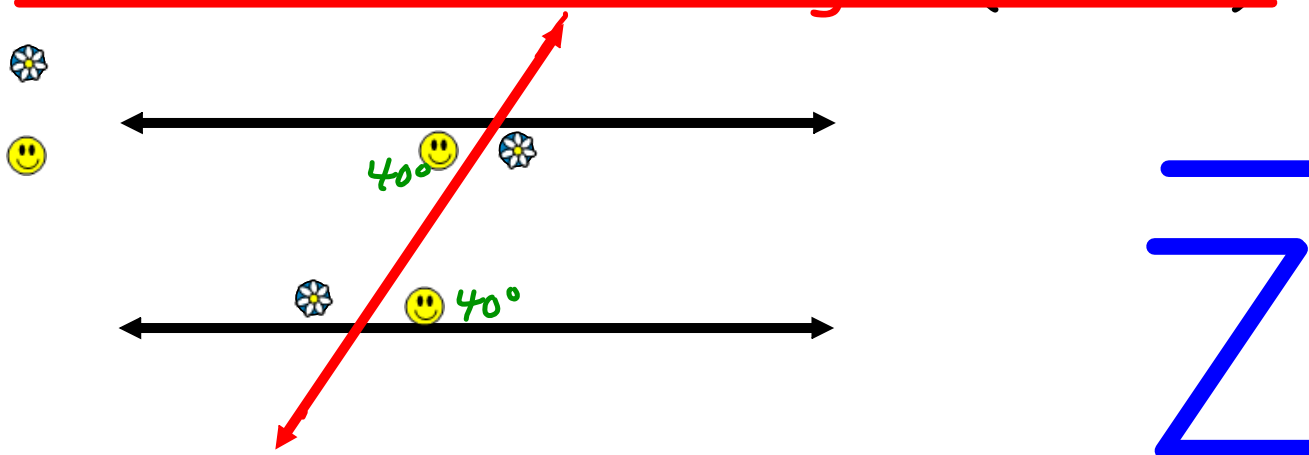
Angles between
two main lines are
Interior Angles

Exterior Angles



Angles outside the
two main lines are
Exterior Angles

Alternate Interior Angles (Z Rule)

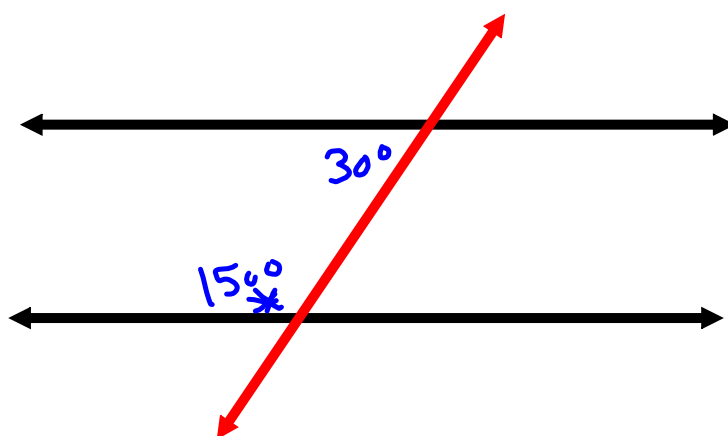


thinking



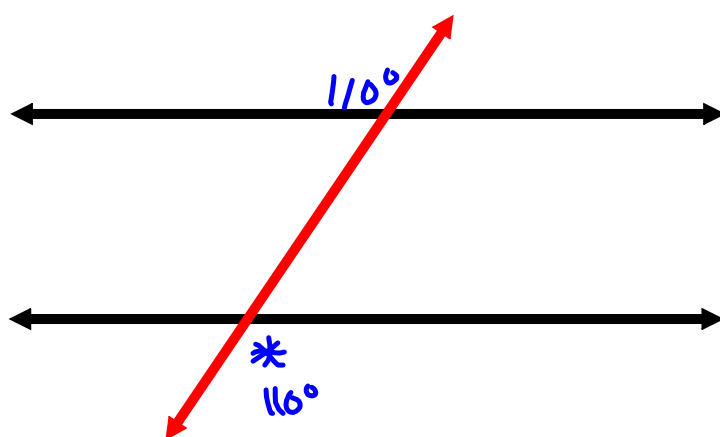
Alternate Interior
angles
are equal.

Co-Interior Angles - Same Side (C Rule)



<p>thinking</p> 	<p>Interior angles (same side) add to 180°.</p>
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Alternate Exterior Angles



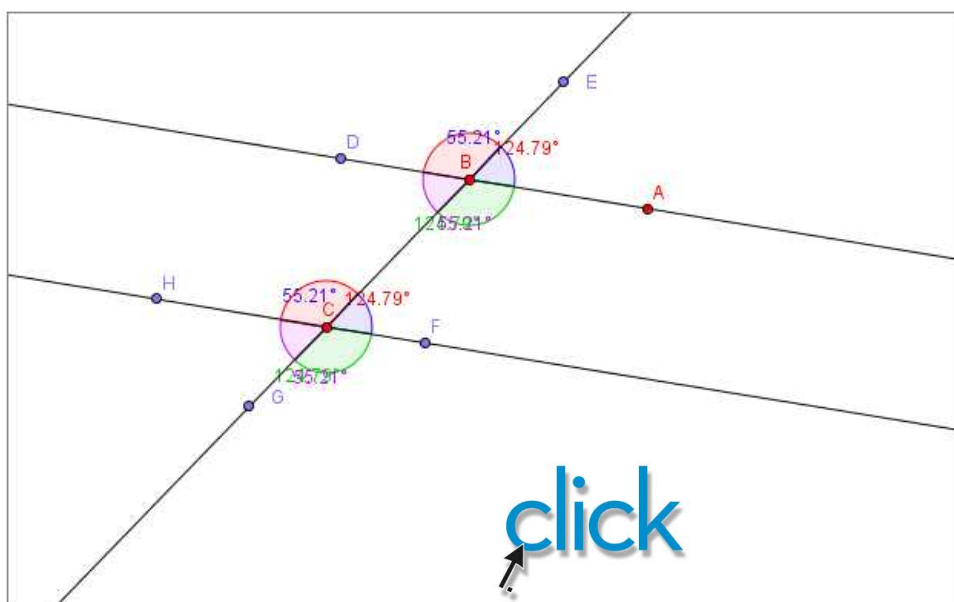
thinking



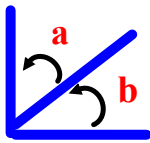
Alternate Exterior
angles
are equal.

Properties of Parallel Lines

Lines AB and FC are parallel. Line BC is a transversal of the two parallel lines AB and FC.



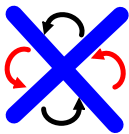
Let's Sum It Up



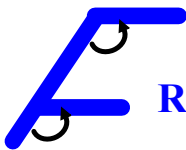
Rule - **Complimentary angles** a & b add up to 90°



Rule - **Supplimentary angles** a & b add up to 180°



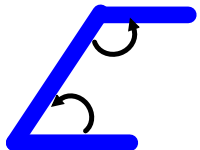
Rule - **Vertically Opposite angles** are equal



Rule - **Corresponding angles** are equal

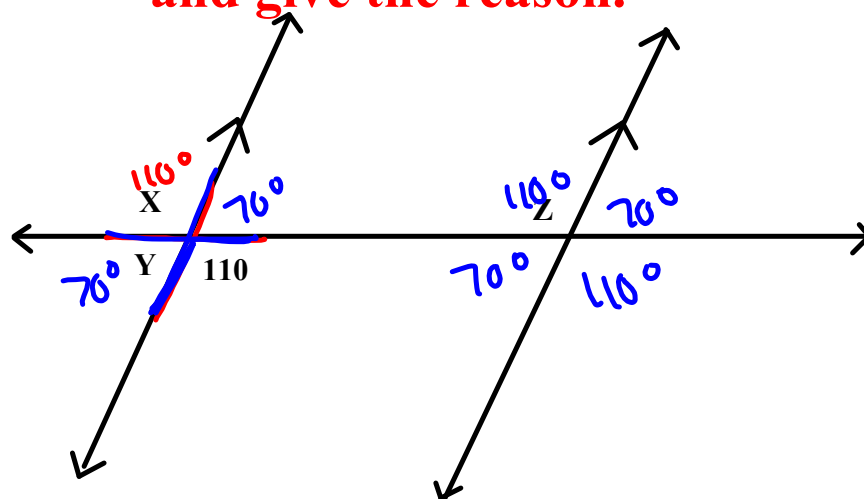


Rule - **Alternate Interior angles** are equal
Alternate Exterior angles are equal

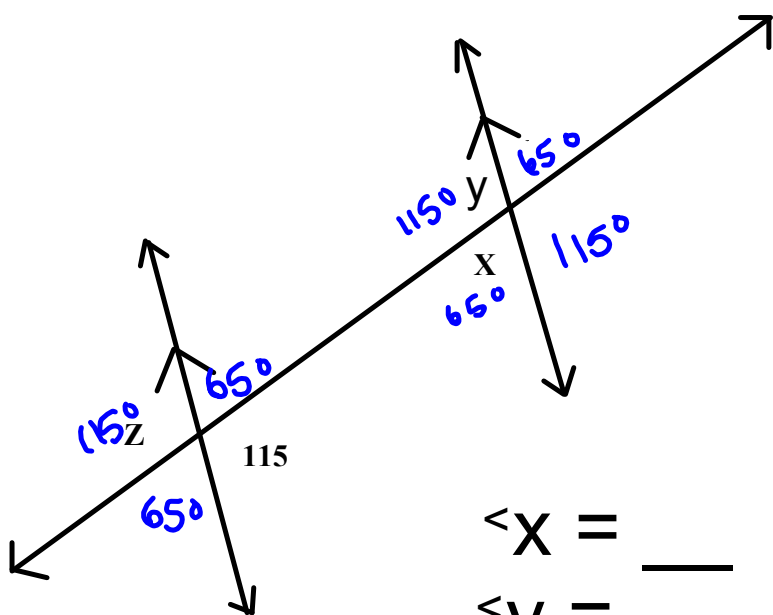


Rule - **Co-interior angles** add up to 180°
Co-Exterior angles add up to 180°

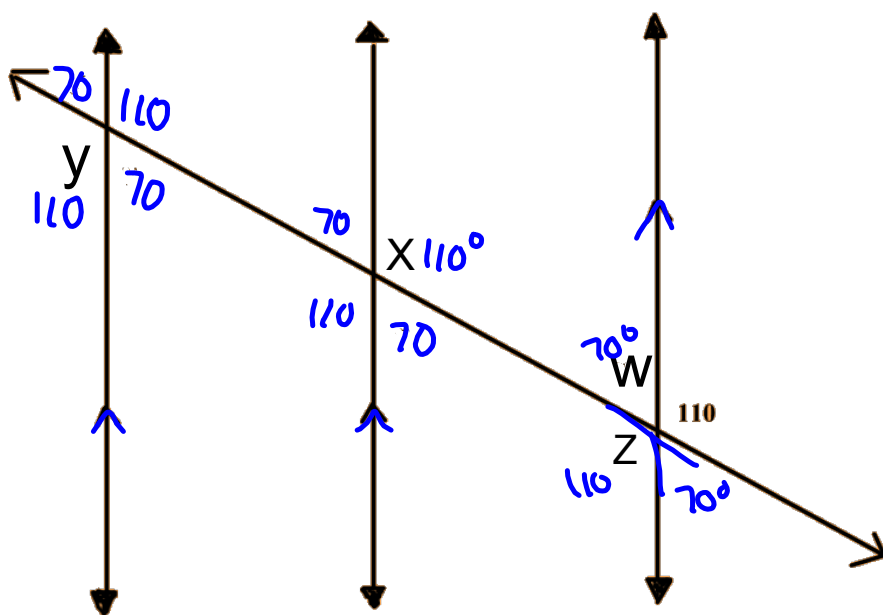
Determine the value of each unknown angle, and give the reason.



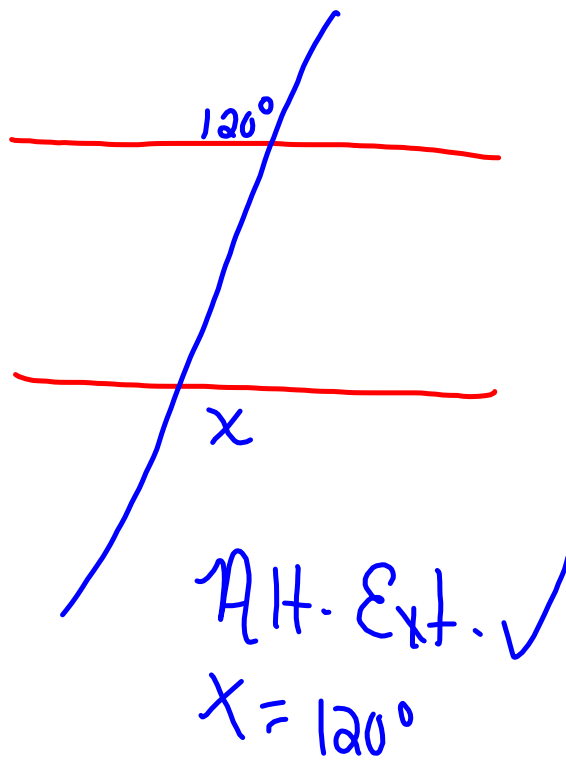
$$\begin{aligned} \angle X &= \underline{\hspace{2cm}} & \underline{\hspace{2cm}} \\ \angle Y &= \underline{\hspace{2cm}} & \underline{\hspace{2cm}} \\ \angle Z &= \underline{\hspace{2cm}} & \underline{\hspace{2cm}} \end{aligned}$$

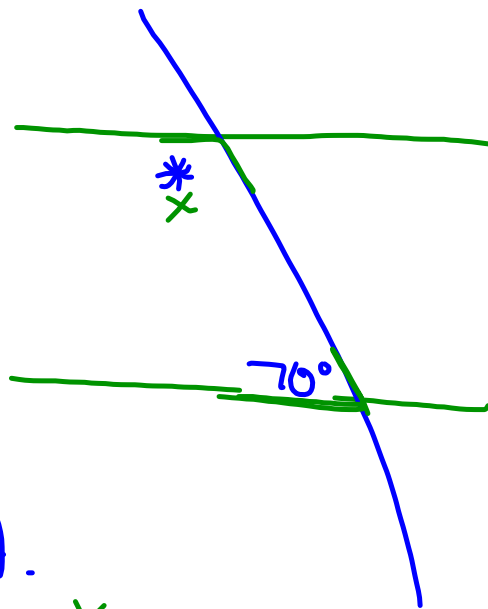


$\angle X =$ _____
 $\angle y =$ _____
 $\angle z =$ _____



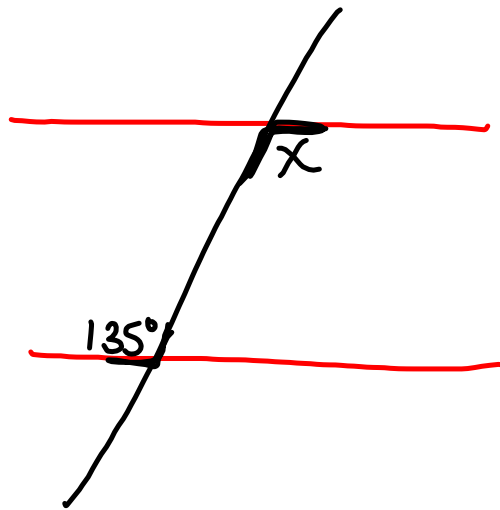
! $w =$ _____ $x =$ _____
 $y =$ _____ $z =$ _____





Co-Int.

$$x = 110^\circ$$



Alt.-Int
 $x = 135^\circ$

