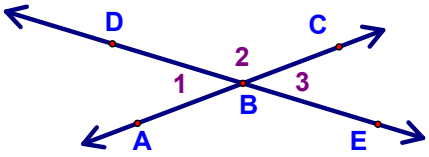
Vertical Angles - Lesson 2-8

Here's the warmup!

Given: Diagram as shown.

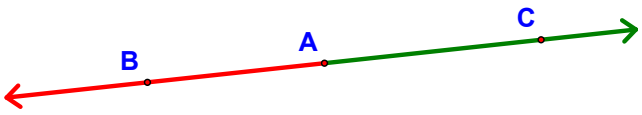
Prove: $\angle 1 \cong \angle 3$



Statements	Reasons

Today, we're going to learn about the concept of vertical angles. Hopefully, it will pretty straight forward for you...let's start by defining opposite rays.

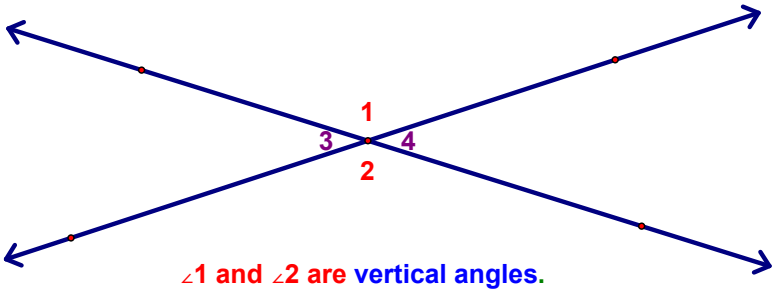
Two collinear rays that have a common endpoint and extend in different directions are called *opposite rays*.



$\overrightarrow{AB}$ and $\overrightarrow{AC}$ are opposite rays.

Now, we can define vertical angles and can show that they are always congruent...you should be able to prove this (we did it as the warm-up today)!

Two angles are *vertical angles* if the rays forming the sides of one and the rays forming the sides of the other are opposite rays.



∠1 and ∠2 are vertical angles.

∠3 and ∠4 are vertical angles.

***Theorem 18* - Vertical angles are congruent (VAT).**