

Bisectors of a Triangle

Math Essentials

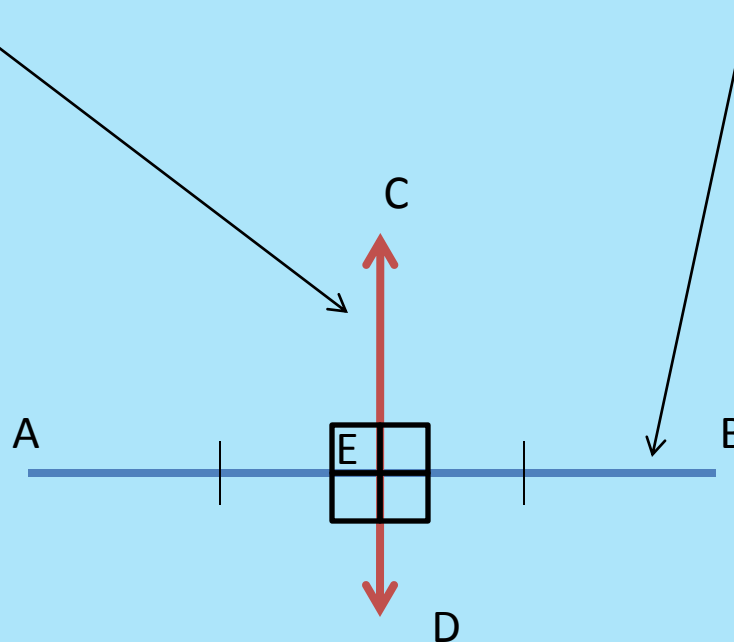
A Perpendicular Bisector...

...is a segment (or line) that is perpendicular to
(makes right angles) and bisects a segment
(makes 2 congruent segments)

Line CD is the perpendicular bisector of segment AB

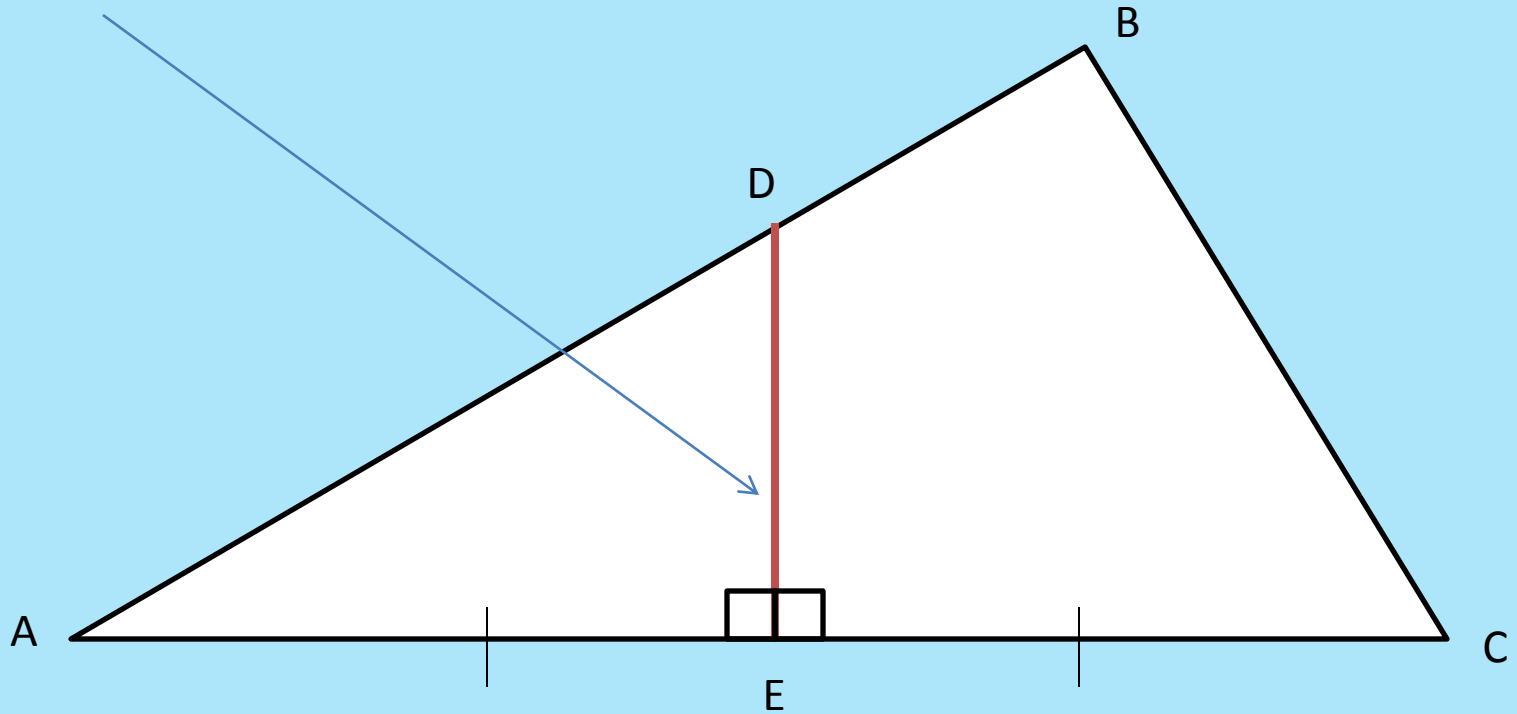
What are the right angles?

What the congruent segments?



In a triangle....

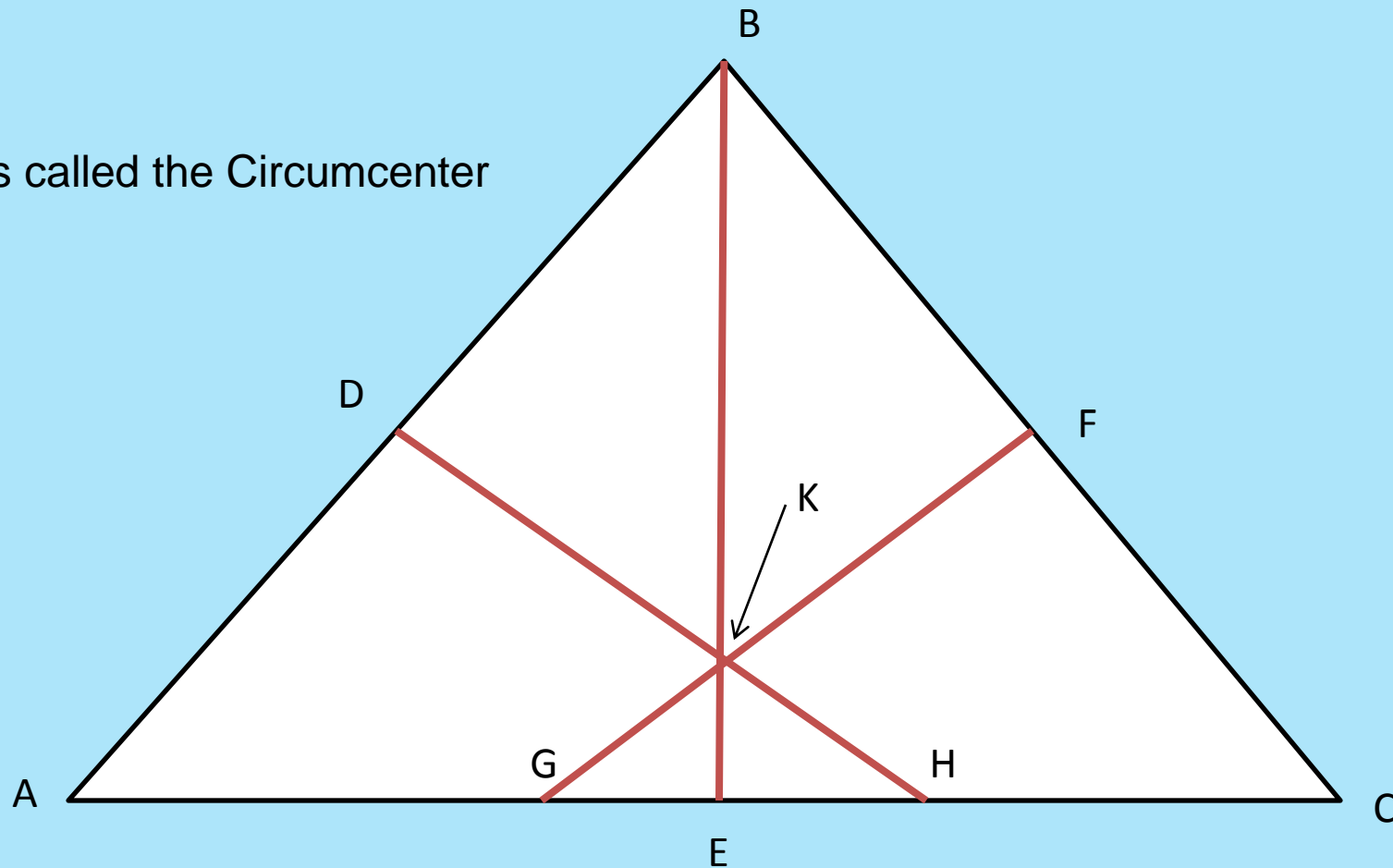
Segment DE is the perpendicular bisector to segment AC



Where are the right angles?

Where are the congruent segments?

K is called the Circumcenter



Segment BE is the perpendicular bisector of segment AC. What is congruent and where are the right angles?

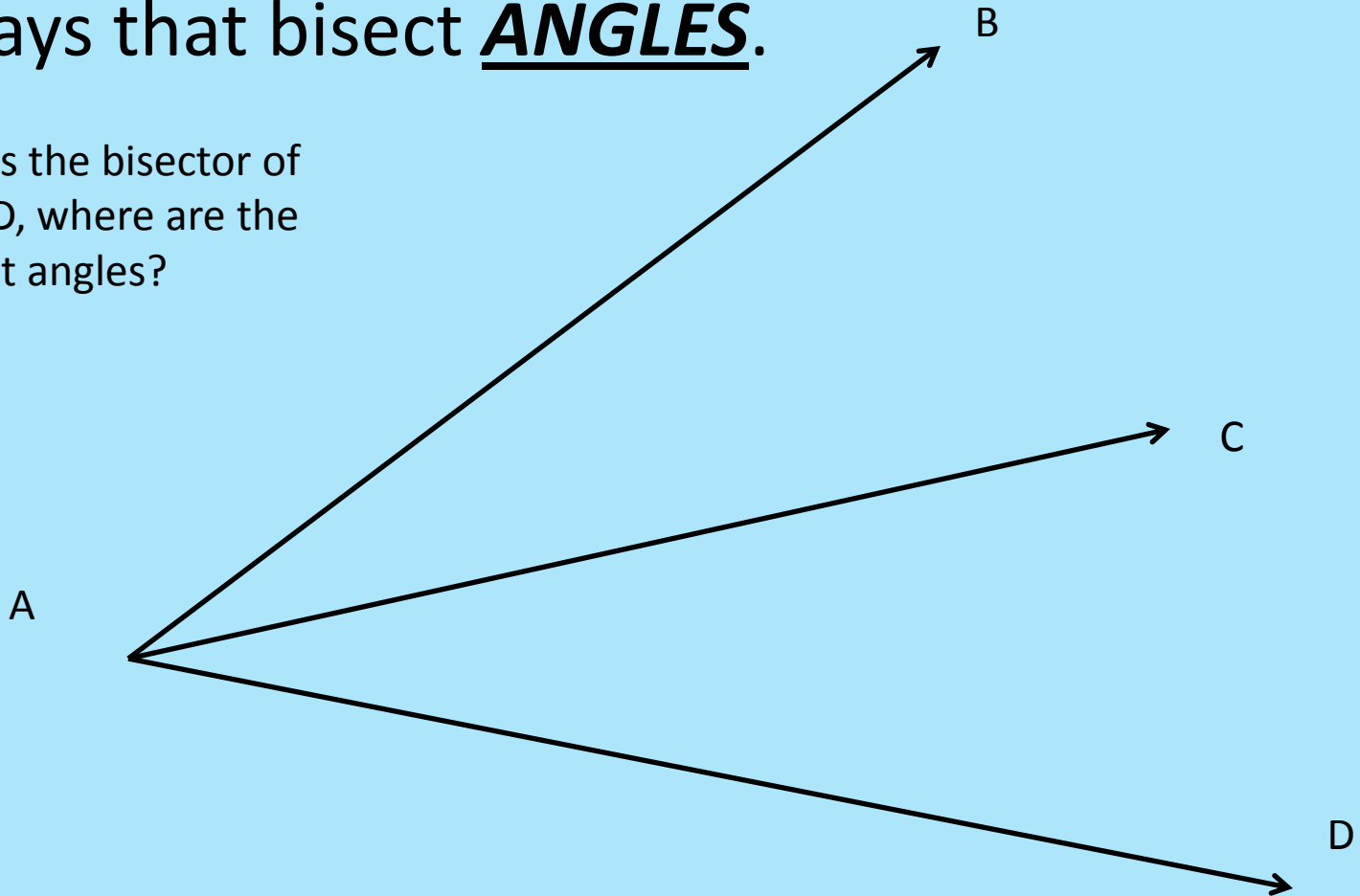
Segment DH is the perpendicular bisector of segment AB. What is congruent and where are the right angles?

Segment FG is the perpendicular bisector of segment BC. What is congruent and where are the right angles?

Angle Bisectors...

...are rays that bisect **ANGLES**.

If ray AC is the bisector of angle BAD, where are the congruent angles?

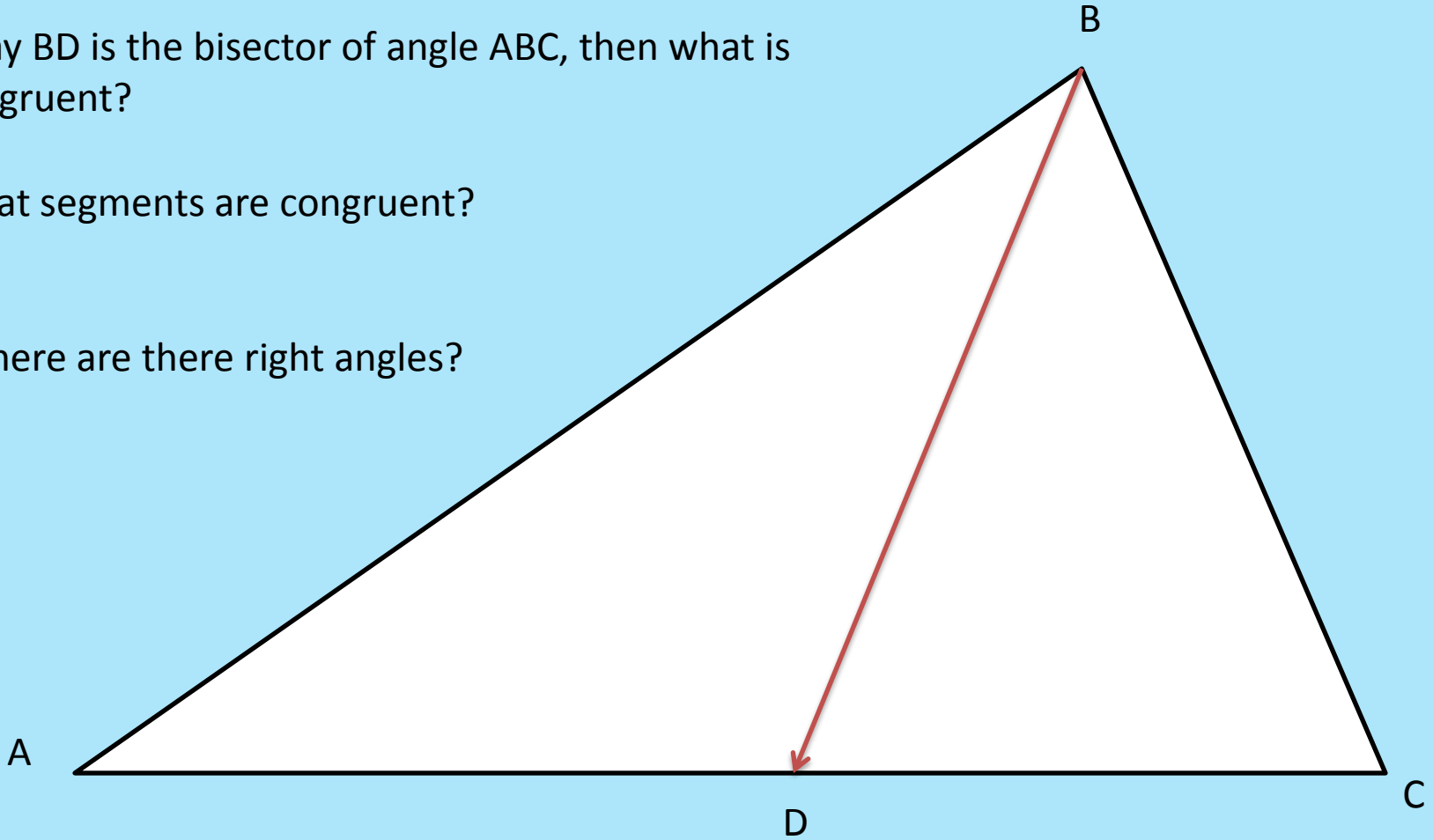


In a triangle...

If ray BD is the bisector of angle ABC , then what is congruent?

What segments are congruent?

Where are there right angles?



If ray BD is the bisector of angle ABC , then what is congruent?

If ray CE is the bisector of angle BCA , then what is congruent?

If ray AF is the bisector of angle BAC , then what is congruent?

G is called the Incenter

