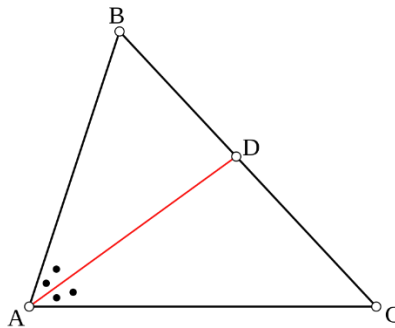


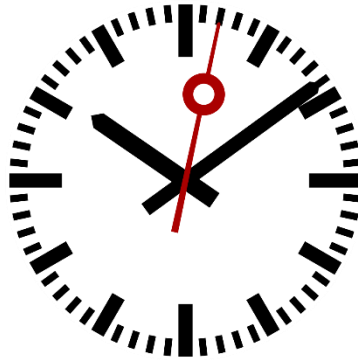
Angle Bisectors and Perpendicular Bisectors

Angle Bisector

Definition: A line which cuts an angle into two equal halves



Examples of angle bisectors are architecture, making quilts and even cakes.

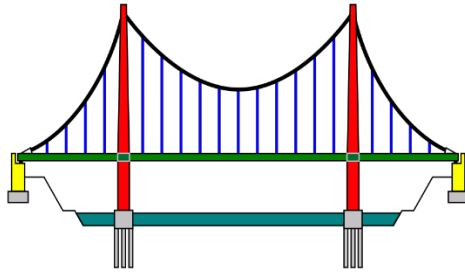
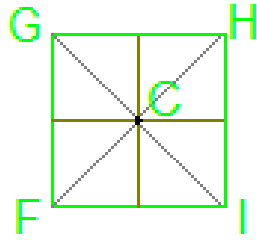


Theorem:

In geometry, the **angle bisector theorem** is concerned with the relative lengths of the two segments that a triangle's side is divided into by a line that bisects the opposite **angle**. It equates their relative lengths to the relative lengths of the other two sides of the triangle

Perpendicular Bisector

Definition: A line which cuts a line segment into two equal parts



Examples of perpendicular bisectors in real life are making bridges and tables, etc.

Theorem:

If a point is on the **perpendicular bisector** of a segment, then it is equidistant from the endpoints of the segment