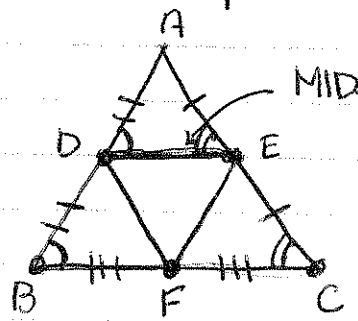
Triangle Theorems

<u>△ Angle Sum Theorem</u>: The angles of a △ add to be 180°.

<u>Isosceles △ theorem</u>: If 2 sides of a △ are ≅, then the angles opposite of those sides are ≅.

<u>Converse of Isosceles △ theorem</u>: If 2 angles of a △ are ≅, then the sides opposite are ≅.

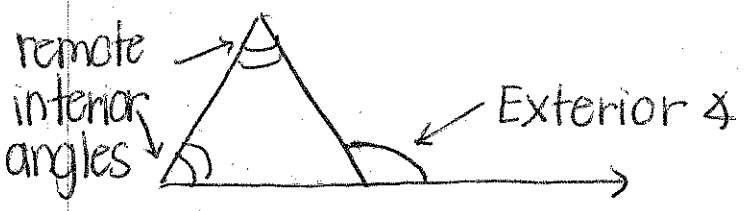
<u>Midsegments of Triangles</u>: created by a segment that connects the midpoints of two sides



① $\overline{DE} \parallel \overline{BC}$
② $\triangle ADE \sim \triangle ABC$
③ $DE = \frac{1}{2} BC$
$BC = 2\,DE$

Properties of a midsegment:
① The midsegment is parallel to the base of the triangle
② Creates 2 similar triangles
③ The midsegment is ½ the length of the side it is parallel to

Exterior Angle Sum Theorem:
The exterior angle of a Δ is equal to the sum of the two remote interior angles



Transforming Functions

*Reminder: F(x) is another name for y

Function: a relation where each input "x" has only one out put "y"

Vertical Line Test: If a vertical line is placed anywhere on a graph, the line can only touch the graph once in order for it to be a function

Domain: x-values

Range: y-values