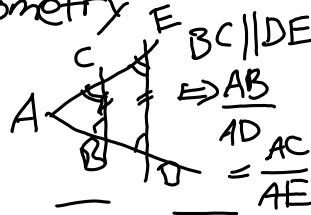
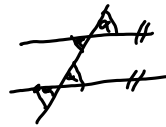
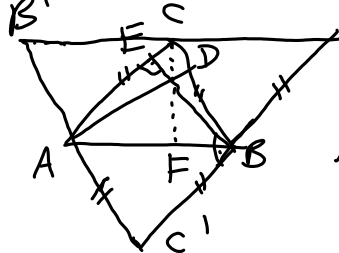
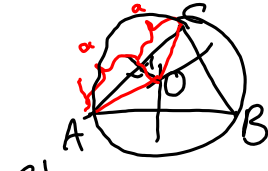


Elementary Geometry



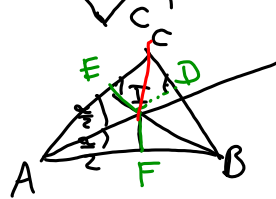
$$\frac{OA}{OB} = \frac{OB}{OC}$$

$$\Rightarrow \overline{OA} = \overline{OC}$$



$$AC = A'B$$

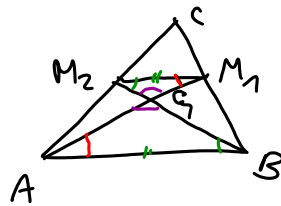
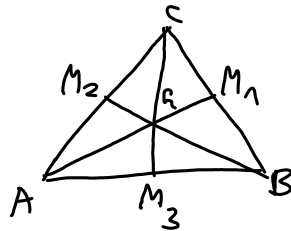
$$AC = BC'$$



$$\overline{IF} = \overline{IE}$$

$$\overline{IF} = \overline{ID}$$

$$\Rightarrow \overline{ID} = \overline{IE}$$



$$\frac{CM_2}{CA} = \frac{1}{2}$$

$$\frac{CM_1}{CB} = \frac{1}{2}$$

$$\frac{M_1M_2}{AB} = \frac{AG}{GM_1} \cdot \frac{GM_1}{AG} \cdot \frac{M_1M_2}{AB} = \frac{1}{2} \Rightarrow M_1M_2 \parallel AB$$

$$\frac{M_1M_3}{AC} = \frac{GM_3}{AG} \cdot \frac{GM_3}{AG} \cdot \frac{M_1M_3}{AC} = \frac{1}{2} \Rightarrow G = G'$$

