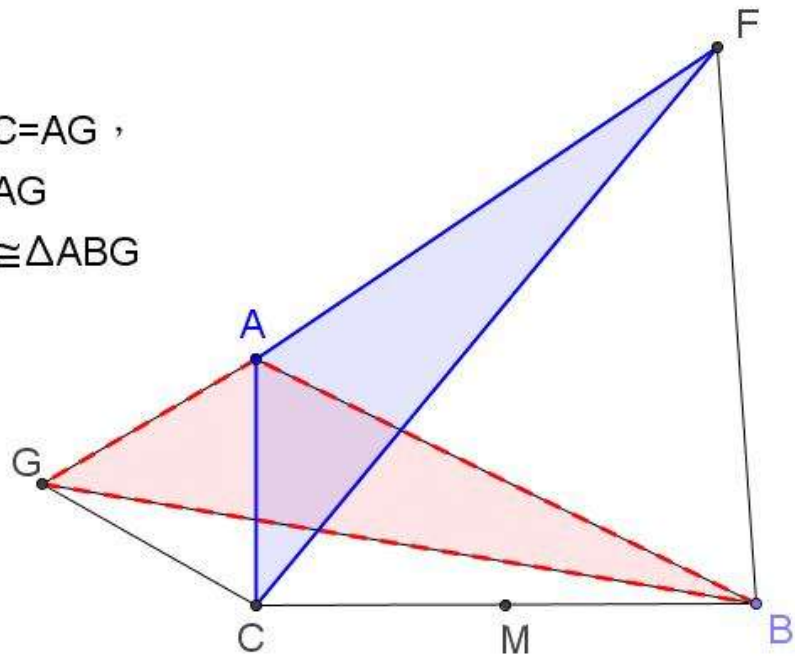


7.

$AF=AB$, $AC=AG$,
 $\angle FAC=\angle BAG$
所以 $\triangle AFC \cong \triangle ABG$
故 $CF=BG$



由中線定理知

$$FC^2+FB^2=2(MC^2+FM^2)$$

$$GC^2+GB^2=2(MC^2+GM^2)$$

二式相減

$$FC^2+FB^2-GC^2-GB^2=2FM^2-2GM^2 \quad (FC=GB)$$

$$AB^2-AC^2=2 \times 11^2-2 \times 7^2 \quad (ABC \text{ 為直角三角形})$$

$$BC^2=144$$

$$BC=12 \text{ (負不合)}$$