

## The Three Pythagorean Means in a Circle

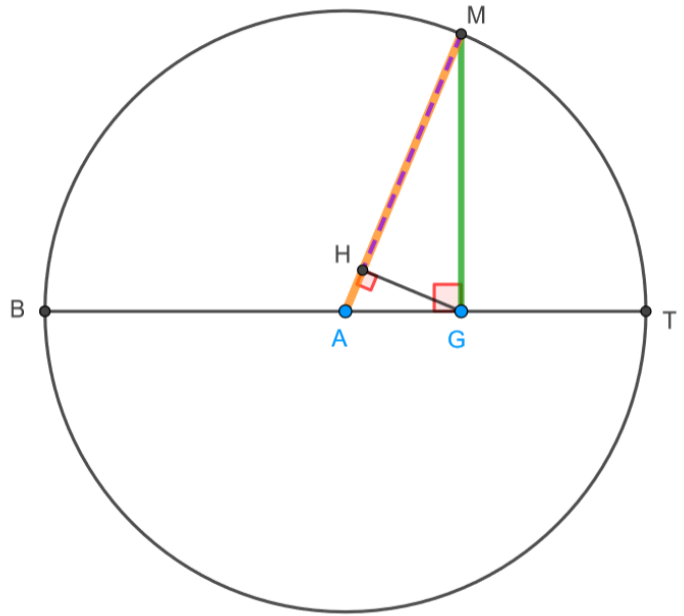
### Given:

Circle centered at A

$\overline{BT}$  is a diameter

$\overline{GM} \perp \overline{BT}$

$\overline{HG} \perp \overline{AM}$



### Show:

$$AM = \frac{GB + GT}{2}$$

$$HM = \frac{2(GB \cdot GT)}{GB + GT}$$

$$GM = \sqrt{GB \cdot GT}$$