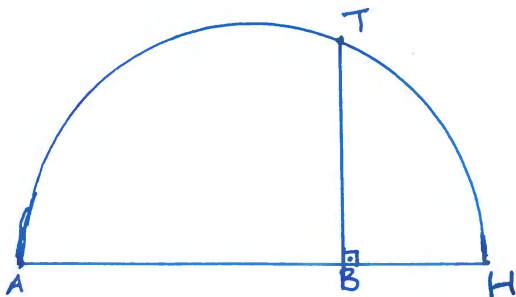


### Hmw Problem 1

Given the semicircle  $ATH$  and the perpendicular  $TB$  to the diameter  $AH$ , show, using similar triangles, that  $|TB|^2 = |AB| \cdot |BH|$

Note that  $B$  does not have to be the center of the circle



### Hmw Problem 2

Given the semicircle  $AGB$  and the line  $ZG$  being tangent to the circle at  $G$ , show, using similar triangles, that  $|GZ|^2 = |ZB| \cdot |ZA|$

