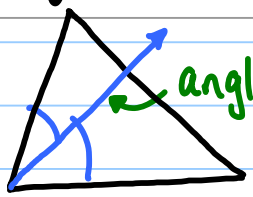
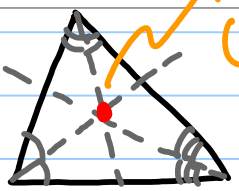
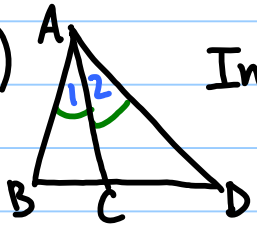
1/26 THU

6.3 Angle Bisectors of Triangles





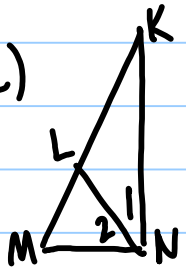
ex 1)



In $\triangle ABD$, $\overline{AC}$ bisects $\angle BAD$.
If $m\angle 1 = 41°$, find $m\angle 2$.

→ 41°

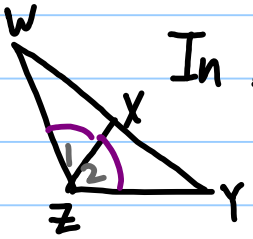
ex 2)



In $\triangle KMN$, $\overline{NL}$ bisects $\angle KNM$.
If $\angle KNM$ is a right angle, find $m\angle 2$.

→ $\frac{1}{2}(90°) = 45°$ (right ∠.)

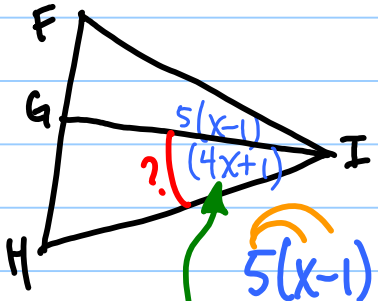
ex 3)



In $\triangle WYZ$, $\overline{ZX}$ bisects $\angle WZY$.
If $m\angle 1 = 55°$, find $m\angle WZY$.

→ $2(55) = 110°$

ex 4)



In $\triangle FHI$, $\overline{IG}$ is an angle bisector.
Find $m\angle HIG$.

$5(x-1) = 4x+1$
$5x-5 = 4x+1$
$-4x \quad -4x$
$x-5 = 1$
$+5 \quad +5$
$x = 6$

$m\angle HIG = 4(6)+1 = 25°$