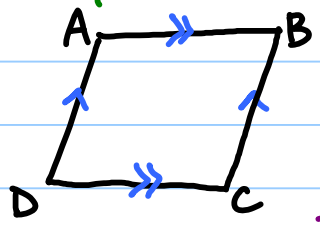
2/2 THU

8.2 Parallelograms

→ quadrilateral w/ two pairs of parallel sides.



THM 8.2

Opposite ∠s of a ll-ogram are ≅

ex) $\angle A \cong \angle C$ & $\angle B \cong \angle D$

THM 8.3

Opposite sides of a ll-ogram are ≅

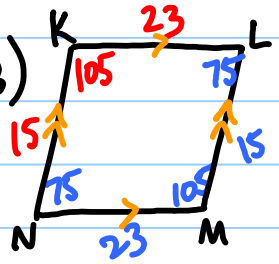
ex) $\overline{AB} \cong \overline{CD}$ & $\overline{AD} \cong \overline{BC}$

THM 8.4

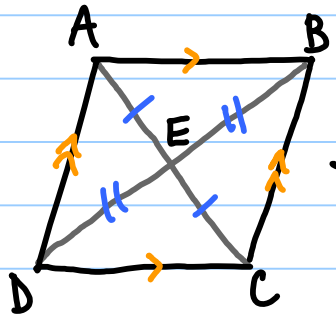
Consecutive ∠s of a ll-ogram are Supplementary

ex) $m\angle A + m\angle B = 180$ & $m\angle B + m\angle C = 180$, etc....

ex 1, 2, 3)



In ll-ogram KLMN, KL = 23, KN = 15, and $m\angle K = 105$. Find everything else!



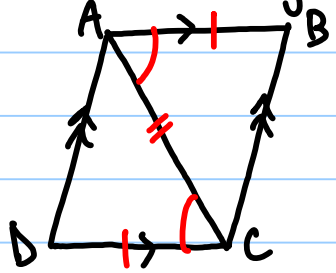
THM 8.5

The diagonals of a ll-ogram bisect each other.

ex) $\overline{AE} \cong \overline{EC}$ & $\overline{DE} \cong \overline{EB}$

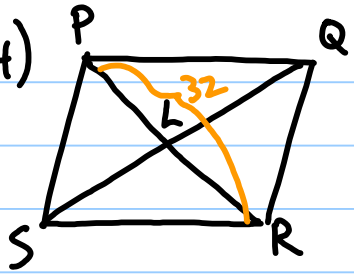
THM 8.6

A diagonal of a ll-ogram separates it into two congruent triangles.



ex) $\triangle ABC \cong \triangle CDA$ by SAS

ex 4)



In ll-ogram PQRS,
if PR = 32, find PL

$\frac{1}{2}(32) = 16$ by Thm 8.5