

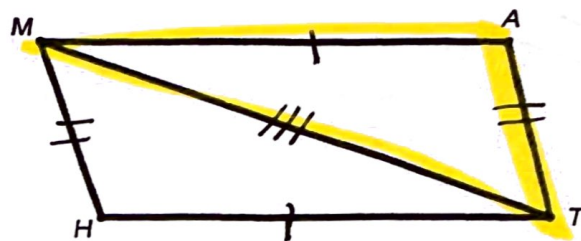
Unit 7 Day 1/2 Parallelogram Proofs

Name _____

Please complete these proofs on a separate sheet of paper.

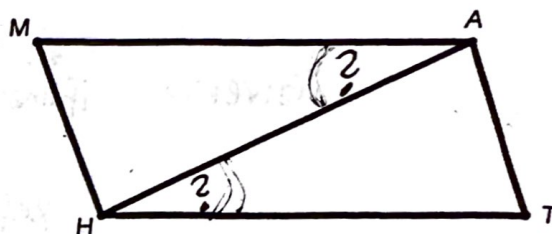
Given: MATH is a parallelogram

Prove: $\triangle MAT \cong \triangle THM$



2) Given: MATH is a parallelogram

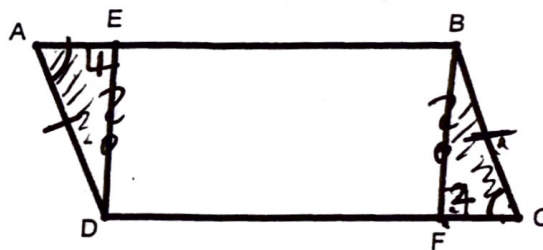
Prove: $\angle MAH \cong \angle THA$



3) Given: ABCD is a parallelogram

$\overline{DE} \perp \overline{AB}$
 $\overline{BF} \perp \overline{DC}$

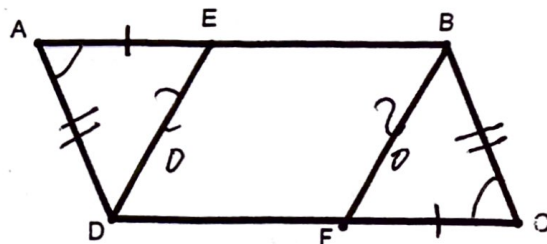
Prove: $\overline{DE} \cong \overline{BF}$



4) Given: ABCD is a parallelogram

$\overline{AE} \cong \overline{CF}$

Prove: $\overline{DE} \cong \overline{BF}$

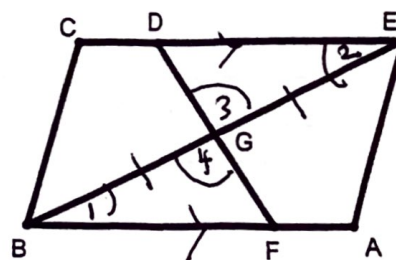


5) Given: ABCE is a parallelogram

\overline{DF} bisects \overline{BE}

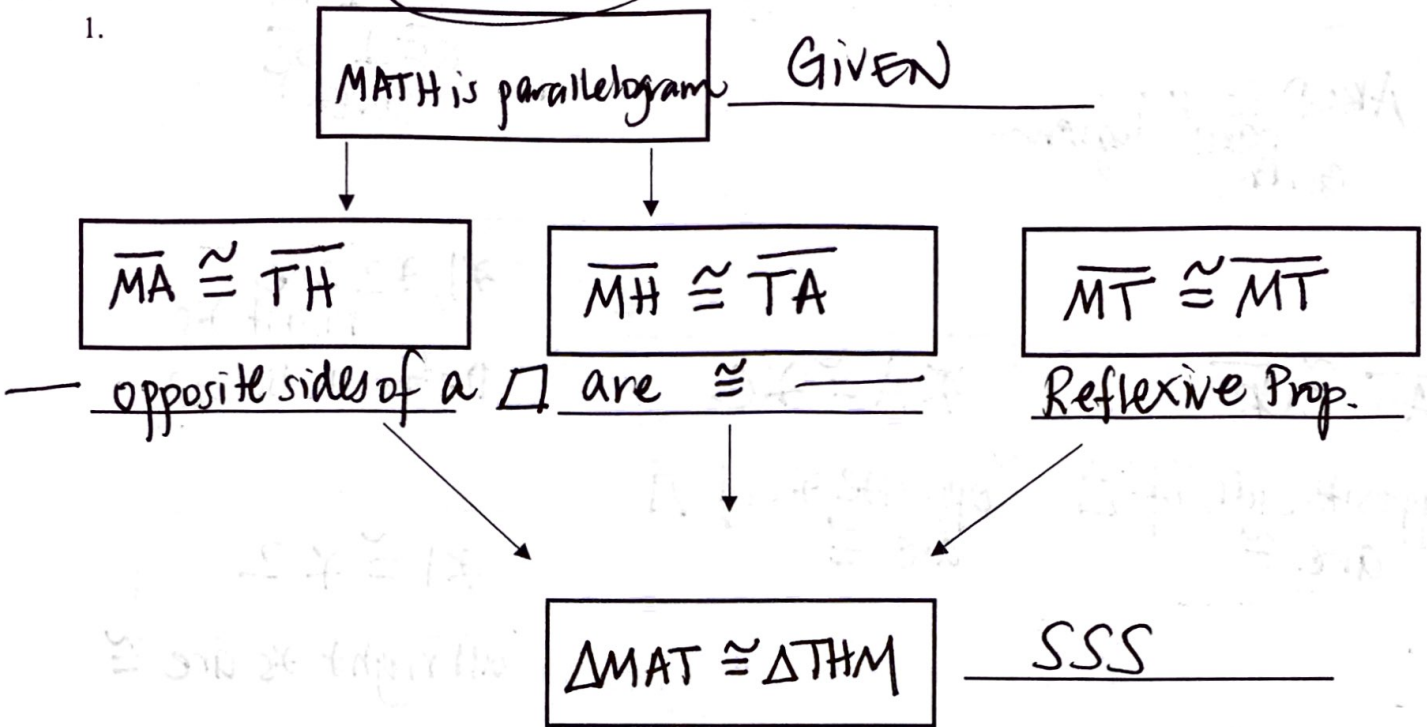
Prove: G is the midpoint of \overline{DF}

$\overline{DG} \cong \overline{GF}$

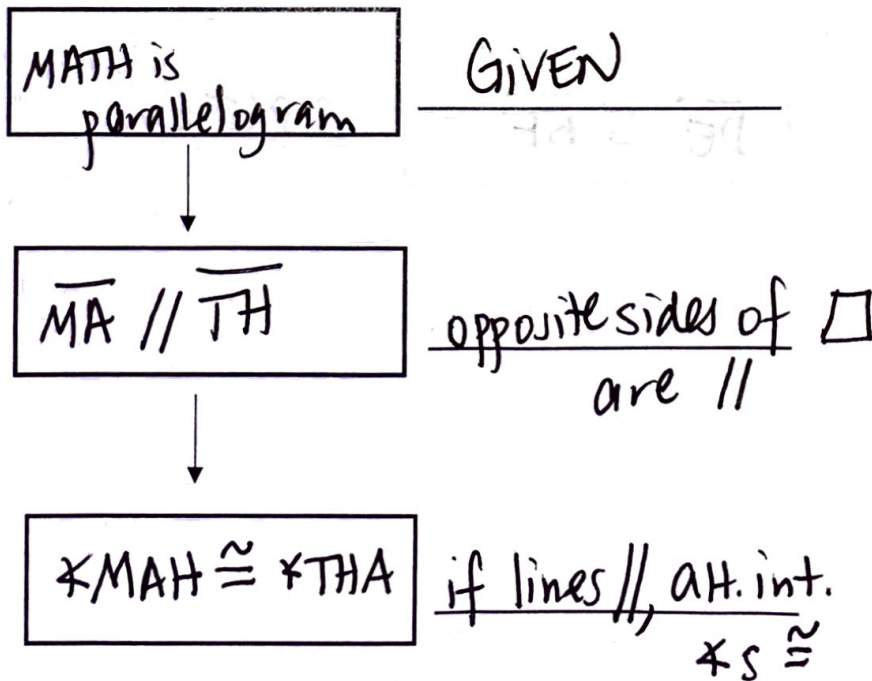


Parallelogram Flow Proofs (Page 33)

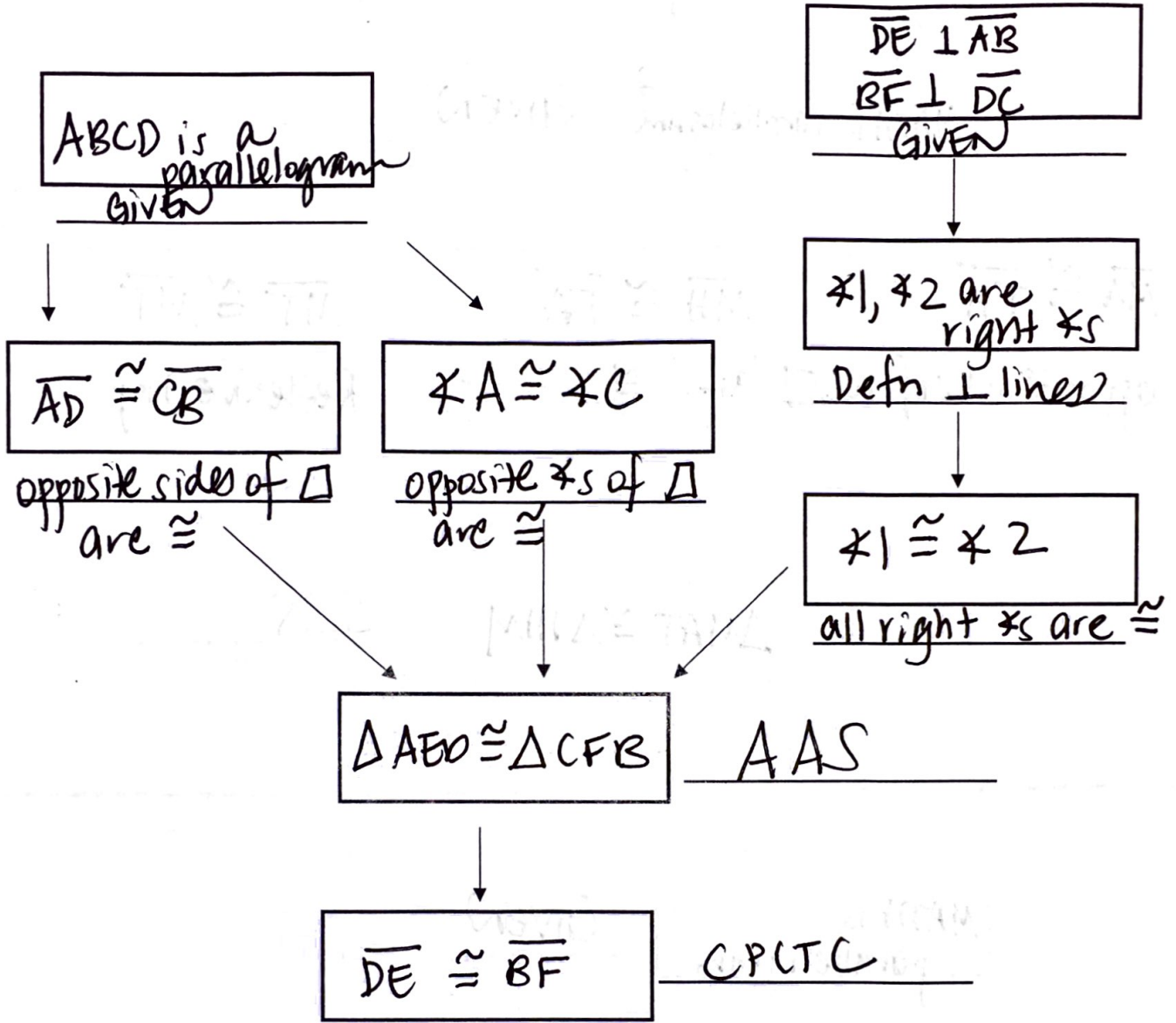
1.



2.



3.



4.

ABCD is parallelogram

GIVEN

$\overline{AE} \cong \overline{CF}$

GIVEN

$\overline{AD} \cong \overline{BC}$

opposite sides of \square

\cong

$\angle A \cong \angle C$

opposite \angle s of \square

$\triangle AED \cong \triangle CFB$

SAS

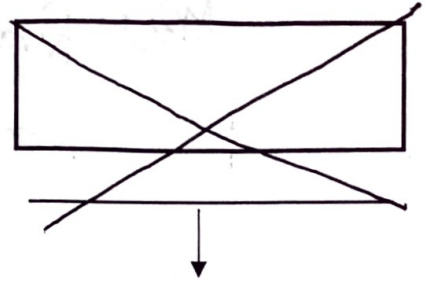
$\overline{DE} \cong \overline{BF}$

CPCTC

5.

ABCE is parallelogram
GIVEN

DF bisects BE
GIVEN



$\overline{CE} \parallel \overline{AB}$
opposite sides of \square
are \parallel

$\overline{BG} \cong \overline{GE}$
Defn. segment
bisector

$\angle 3 \cong \angle 4$
vertical \angle s \cong

$\angle 1 \cong \angle 2$
if lines \parallel , alt. int.
 \angle s \cong

$\triangle DEG \cong \triangle FBG$ ASA

$\overline{DG} \cong \overline{GF}$ CPCTC

