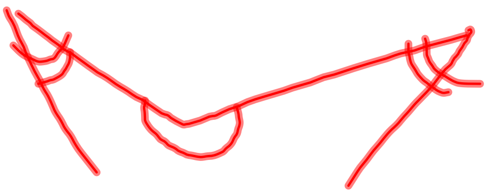
33.

$$\frac{(n-2)180}{\cancel{n}} = 4 \cdot \frac{360}{\cancel{n}}$$

$$(n-2)180 = 4 \cdot 360$$

$$\frac{(n-2)180}{180} = \frac{1440}{180}$$



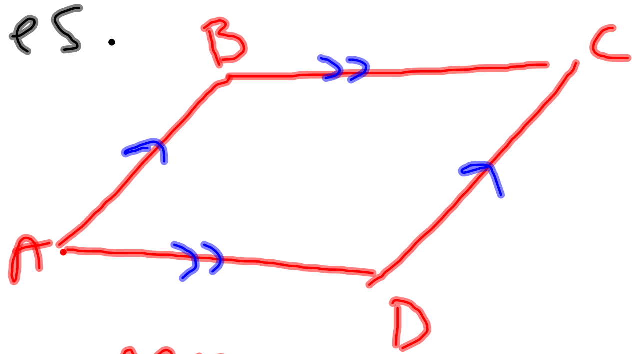
$$n-2 = 8$$
$$+2 \quad +2$$
$$n = 10$$

0 – 5 +

6 – 10 ✓

6.2 Parallelograms

- a quadrilateral with $\parallel$ opposite sides.



parallelogram ABCD

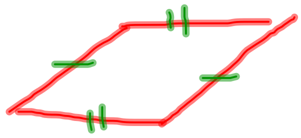
$\square ABCD$

$\overline{AB} \parallel \overline{CD}$

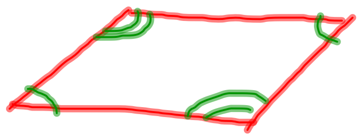
$\overline{AD} \parallel \overline{BC}$

Theorems

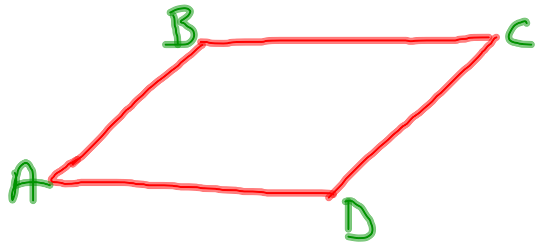
6-2-1: opposite sides of ▱ are $\cong$



6-2-2: opposite $\angle$'s of ▱ are $\cong$

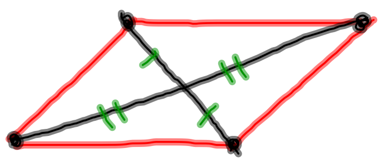


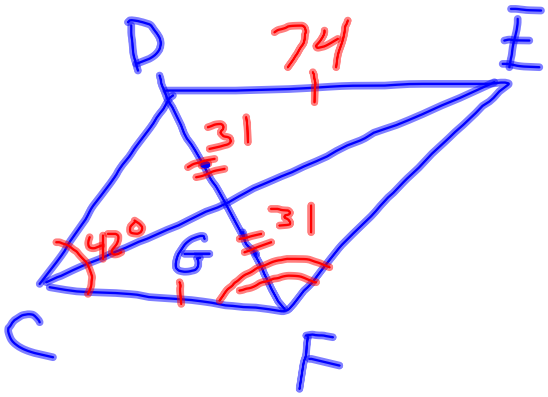
6-2-3: consecutive interior $\angle$'s of ▱ are supplementary



$\angle A + \angle D$ are supp.
$\angle B + \angle C$ " "
$\angle A + \angle B$ " "
$\angle D + \angle C$ " "

6-2-4: diagonals of a ▱ bisect each other.

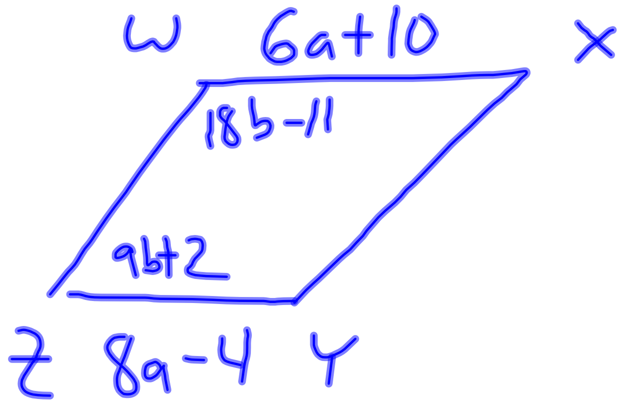




in ▱CDEF DE = 74, DG = 31

m∠FCD = 42°.

a) CF = 74 b) m∠CFE = 138° c) DF = 62

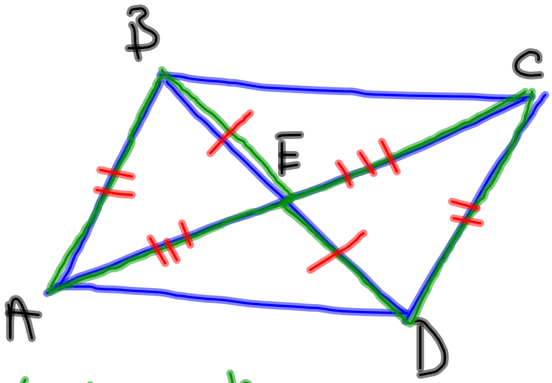


a) $YZ = 8a-4 = 8(7)-4 = 52$

$$8a-4 = 6a+10$$
$$\underline{-6a \qquad -6a}$$
$$2a-4 = 10$$
$$\underline{+4 \qquad +4}$$
$$\frac{2a}{2} = \frac{14}{2}$$
$$a = 7$$

Given: ABCD is a ▱

Prove: $\triangle AEB \cong \triangle CED$



Statement	Reasons
1. ABCD is a ▱	1. Given
2. $\overline{BE} \cong \overline{ED}$	2. Diag. of ▱ bisect each other
3. $\overline{AB} \cong \overline{CD}$	3. opp. side ≅
4. $\overline{AE} \cong \overline{EC}$	4. Diag. of ▱ bisect each other
5. $\triangle AEB \cong \triangle CED$	5. SSS

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2-42 even

odds extra credit