Consider <u>parallelogram</u> WXYZ.

    1. Find the measure of ∠Z

    2. Find the length of $\overline{ZY}$

W   3b+12   X

8a - 40   2a+20

Z   5b - 8   Y
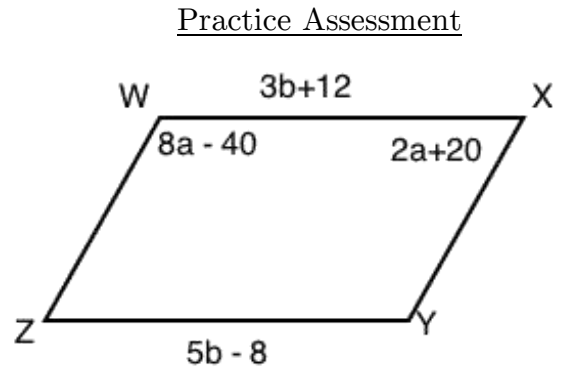
Consider <u>parallelogram</u> ABCD with diagonals intersecting at E.
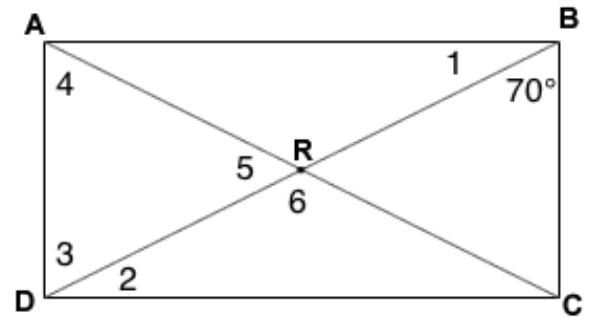
    3. If $AC = 12x - 6$, and $AE = 2x + 9$, find the length of EC.

A   B
E
D   C
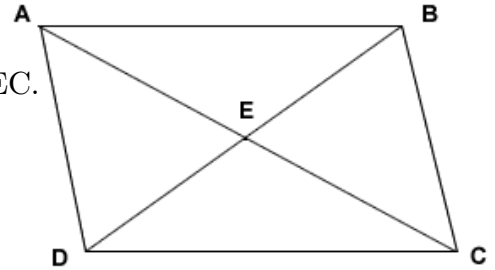
CO-C11b
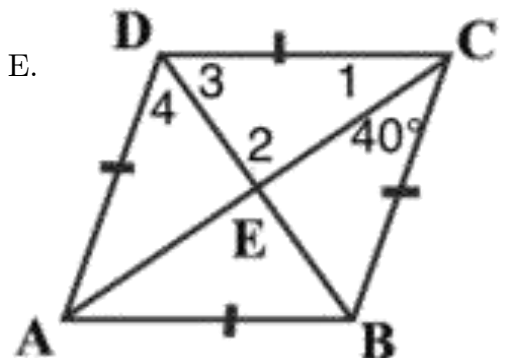
Consider <u>rectangle</u> ABCD for #4-5

    4. If $AR = 4x - 2$ and $BR = x + 7$, find the
       length of AC.

A   B
4   1   70°
   R
5   6
3
2
D   C

    5. Find the angle measures:
       ∠1 =   ∠2 =   ∠3 =

       ∠4 =   ∠5 =   ∠6 =

    6. True or false (if false, write or show an explanation): All rectangles are squares.

    7. Consider <u>rhombus</u> DCBA with diagonals intersecting at E.
       Find the angle measures
       ∠1 =   ∠2 =   ∠3 =

       ∠4 =   ∠ABC =

D   C
3   1
4   2   40°
E
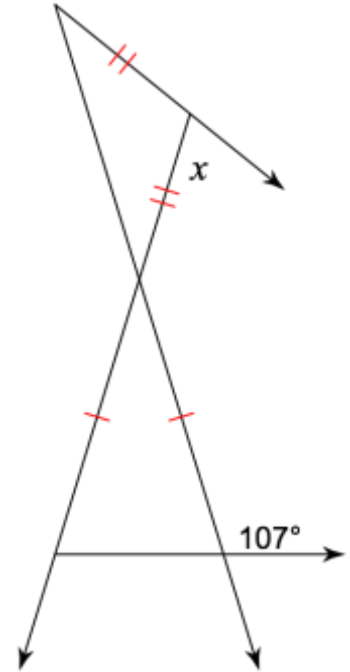A   B

8. Two remote interior angles of a triangle measure 51° and 33°. What is the measure of the exterior angle associated with the remote interior angles?

9. If a base angle of an isosceles triangle measures 30°, is the triangle acute, right or obtuse? Justify your answer.
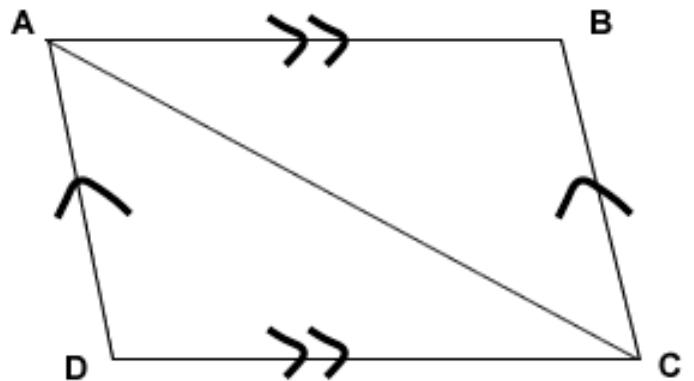
10. Find the value of x in the figure:

SRT-B5a

11. Complete the proof.

Given: $\overline{AB} \parallel \overline{CD}$ and $\overline{BC} \parallel \overline{DA}$

Prove: $\angle D \cong \angle B$

Statements	Reasons
1. $\overline{AB} \parallel \overline{CD}$, $\overline{BC} \parallel \overline{DA}$	1. Given
2. $\angle BAC \cong \angle DCA$	2.
3. $\overline{AC} \cong \overline{CA}$	3.
4. $\angle DAC \cong \angle BCA$	4.
5. $\triangle ACD \cong \triangle CAB$	5.
6. $\angle D \cong \angle B$	6.

Possible reasons: (may be used more than once)

Vertical angles	Congruent	Definition of bisect	CPCTC	Reflexive Property
HL	SAS	SSS	ASA	AAS	SSA	AAA