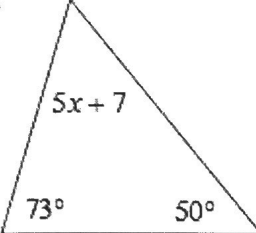
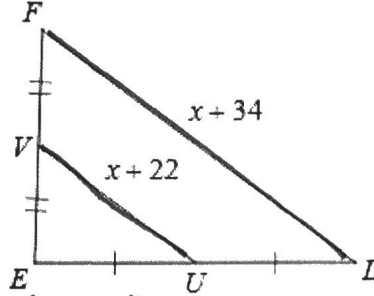


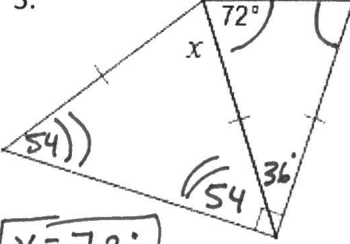
Unit 2 Part B Review: Transformations & Congruence

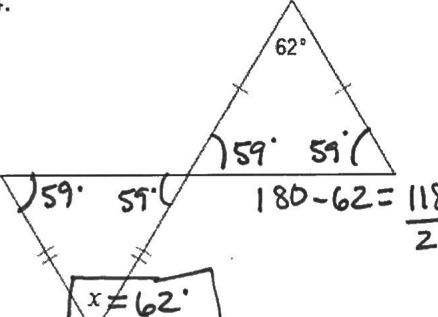
Learning Target #3: Triangle Relationships

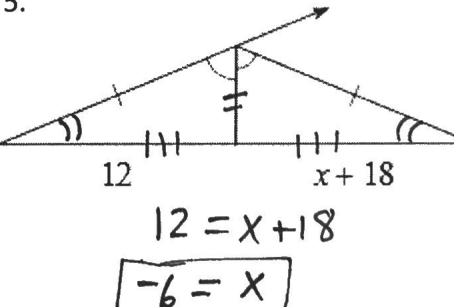
Solve for x.

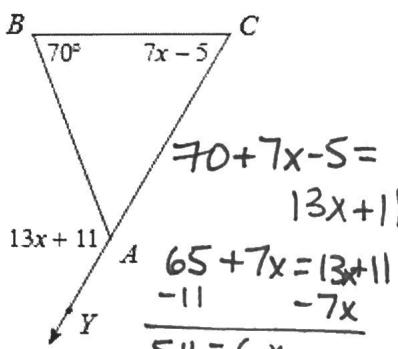
1. 
 $5x + 136 = 180$
 $5x = 50$
 $x = 10$

2. 
 $2(x + 22) = x + 34$
 $2x + 44 = x + 34$
 $x = -10$

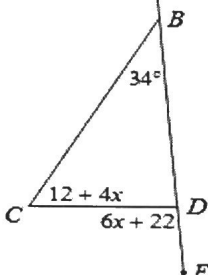
3. 
 $x = 72^\circ$
 $90 - 36 =$

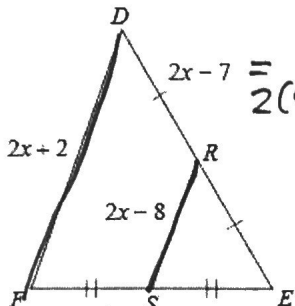
4. 
 $180 - 62 = \frac{118}{2}$
 $x = 62^\circ$

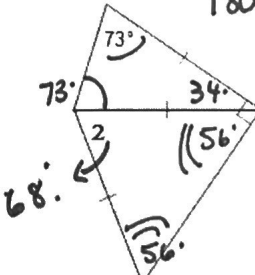
5. 
 $12 = x + 18$
 $-6 = x$

6. 
 $70 + 7x - 5 = 13x + 11$
 $65 + 7x = 13x + 11$
 $-11 \quad -7x$
 $54 = 6x$
 $9 = x$

Solve for the indicated measure.

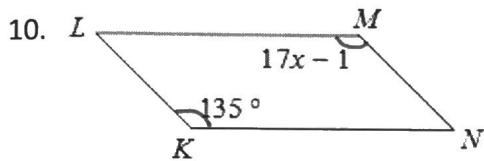
7. $m\angle EDC = 6(6) + 22 = 58^\circ$

 $34 + 12 + 4x = 6x + 22$
 $46 + 4x = 6x + 22$
 $-22 \quad -4x$
 $24 = 2x$
 $6 = x$

8. $\overline{DE} = 11 + 11 = 22$

 $2(2x - 7) = 2x + 2$
 $4x - 14 = 2x + 2$
 $-2x \quad +16$
 $2x = 18$
 $x = 9$

9. $m\angle 2 = x + 76$

 $180 - 73 - 73 = 34^\circ$
 $90 - 34 = 56^\circ$
 $180 - 56 - 56 = 68$
 $m\angle 2 = x + 76$
 $68 = x + 76$
 $-8 = x$

Learning Target #4: Parallelograms

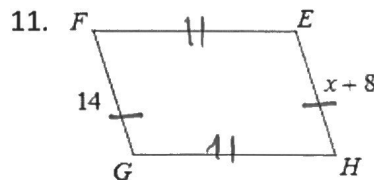
Solve for x. Each figure is a parallelogram.



$$135 = 17x - 1$$

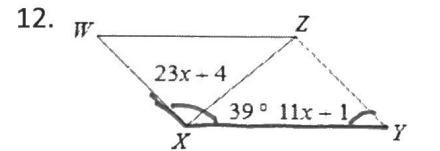
$$136 = 17x$$

$$\boxed{x = 8}$$



$$14 = x + 8$$

$$\boxed{6 = x}$$



$$23x + 4 + 39 + 11x + 1 = 180$$

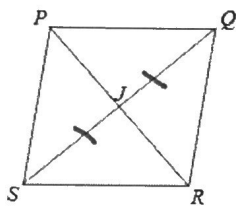
$$34x + 44 = 180$$

$$34x = 136$$

$$\boxed{x = 4}$$

Solve for x.

13. $QJ = 5x + 1$
 $JS = 6x$
 Find QS



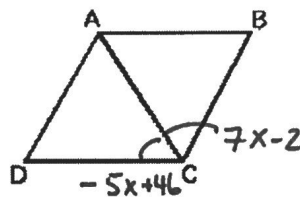
$$5x + 1 = 6x$$

$$1 = 1x$$

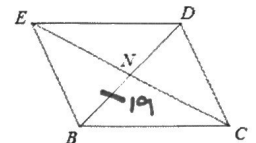
$$QS = 6(1) + 5(1) + 1$$

$$\boxed{12}$$

14. Given: $m\angle BCA = (7x - 2)^\circ$
 and $m\angle DCA = (-5x + 46)^\circ$
 Find, $m\angle DCA = 26^\circ$
 $m\angle DCB = 26^\circ$



15. $NB = 19$
 $DB = 4x + 2$



$$-5x + 46 = 7x - 2$$

$$48 = 12x$$

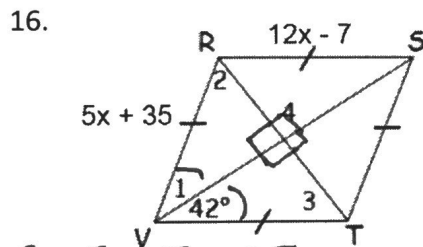
$$4 = x$$

$$19 + 19 = 38$$

$$4x + 2 = 38$$

$$4x = 36$$

$$\boxed{x = 9}$$



$$12x - 7 = 5x + 35$$

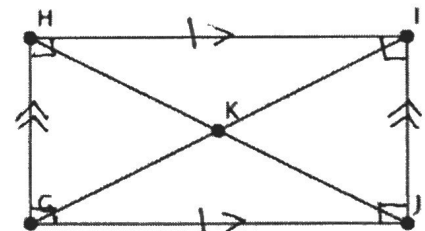
$$7x = 42$$

$$x = 6$$

Solve for: $x = 6$
 $5(6) + 35 = 65$

$m\angle 1 = 42^\circ$
 $m\angle 2 = 48^\circ$
 $m\angle 3 = 48^\circ$
 $m\angle 4 = 90^\circ$
 Perimeter of RSTV:
 $4(65) =$
 $\boxed{260}$

17. Given: $HJ = 3x + 1$
 and $IG = x + 11$, Find x



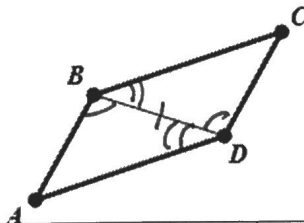
$$3x + 1 = x + 11$$

$$2x = 10$$

$$\boxed{x = 5}$$

Given: ABCD is a parallelogram

Prove: $\angle A \cong \angle C$



Statements	Reasons
1) ABCD is a parallelogram	1) Given
2) $\overline{AB} \parallel \overline{CD}$, $\overline{AD} \parallel \overline{CB}$	2) Definition of a parallelogram
3) $\angle ABD \cong \angle CDB$	3) Alternate Interior Angles Postulate
4) $\angle ADB \cong \angle CBD$	4) Alt. Int. \angle 's Postulate
5) $\overline{BD} \cong \overline{BD}$	5) Reflexive Prop.
6) $\triangle ABD \cong \triangle CDB$	6) ASA
7) $\angle A \cong \angle C$	7) CPCTC