

Section 1: Use CPCTC to answer the following questions.

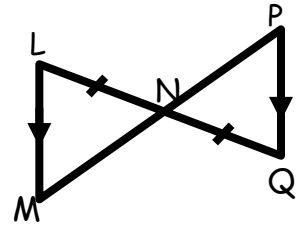
Given: $\triangle ABC \cong \triangle DEF$

- 1. $\angle A \cong$ _____
- 2. $\angle E \cong$ _____
- 3. $\angle C \cong$ _____
- 4. $AB \cong$ _____
- 5. $FD \cong$ _____
- 6. $BC \cong$ _____
- 7. $\triangle BAC \cong$ _____
- 8. $\triangle BCA \cong$ _____
- 9. $\triangle DFE \cong$ _____
- 10. $\triangle EFD \cong$ _____

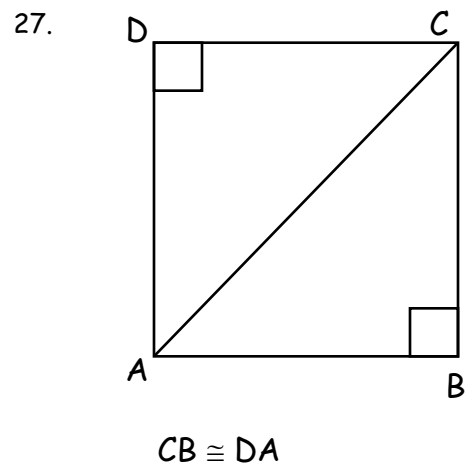
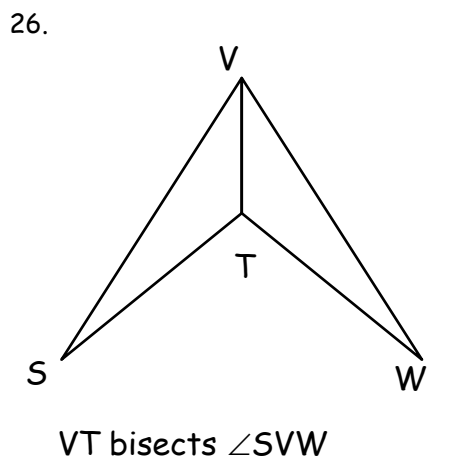
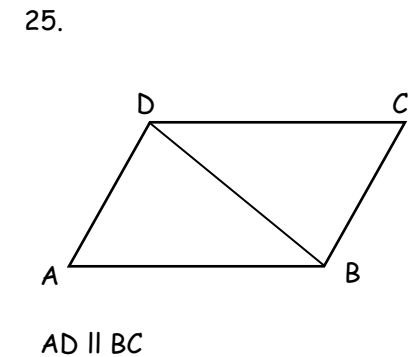
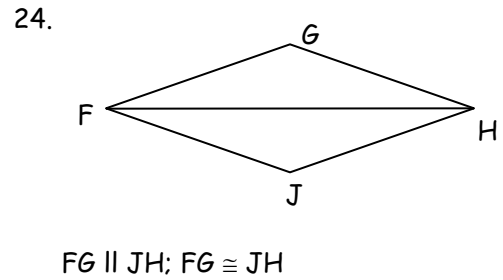
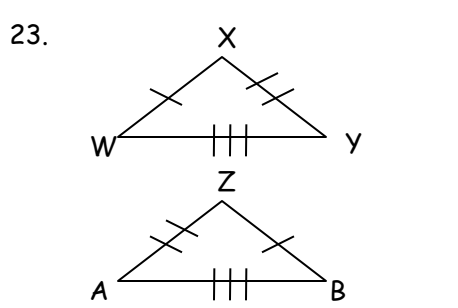
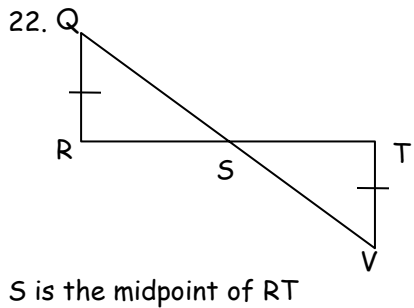
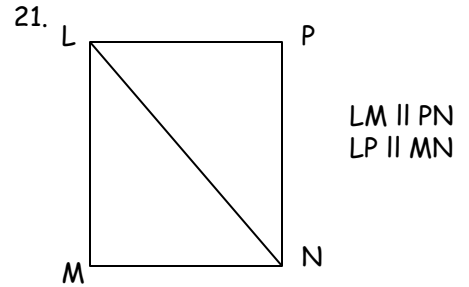
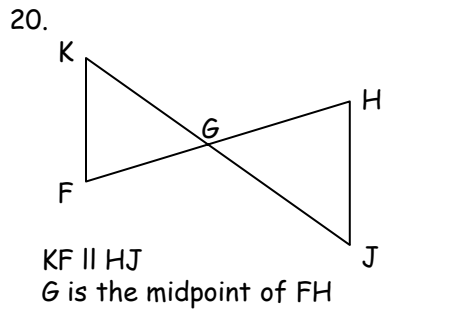
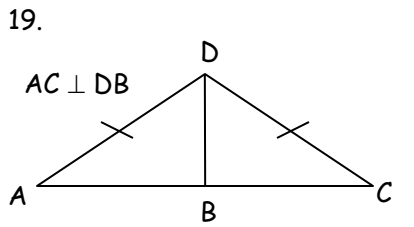
- 11. $\triangle LNM \cong$ _____
- 12. $\angle L \cong$ _____
- 13. $\angle P \cong$ _____
- 14. $LM \cong$ _____
- 15. $PQ \cong$ _____
- 16. $\triangle NLM \cong$ _____

17. $\angle LNM \cong$ _____

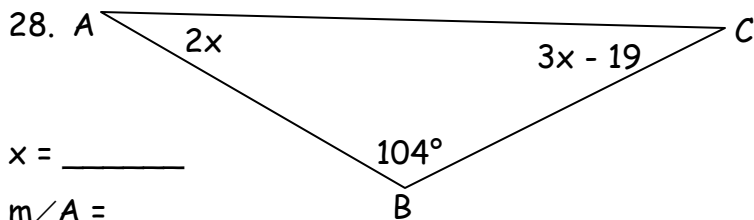
18. $\triangle MLN \cong$ _____



Section 2: Determine whether the triangles are congruent. If they are write the postulate or theorem and the congruent statement. If there is not enough information, write none. Mark your diagrams.



Section 3: Solve each algebra connection problem. Answer all questions.



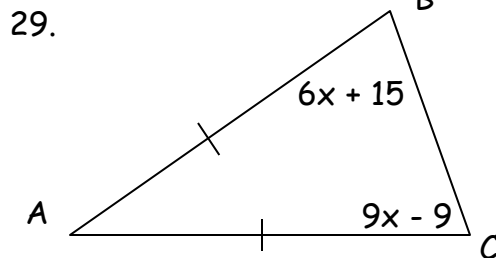
$x =$ _____

$m\angle A =$ _____

$m\angle C =$ _____

Longest Side: _____

Shortest Sides: _____



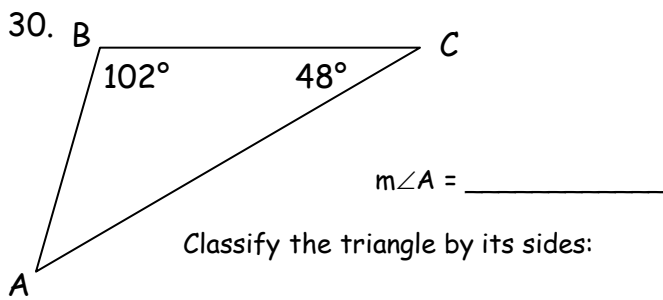
$x =$ _____

$m\angle B =$ _____

$m\angle C =$ _____

$m\angle A =$ _____

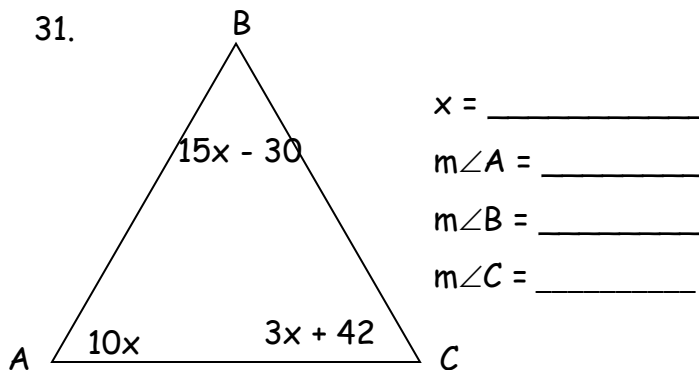
Congruent Sides: _____ Shortest Side: _____



Classify the triangle by its angles: _____

Order the side lengths from longest to shortest: _____

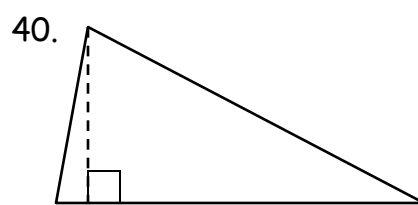
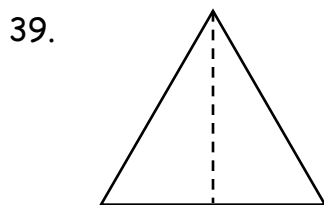
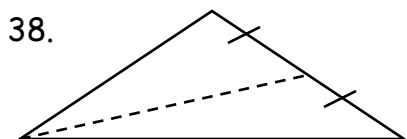
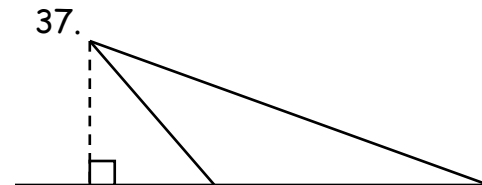
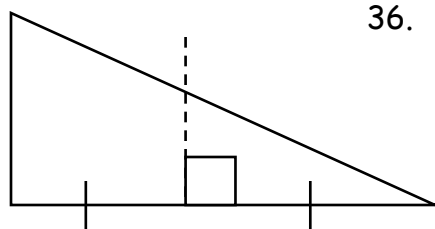
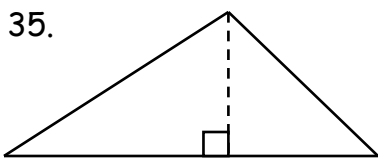
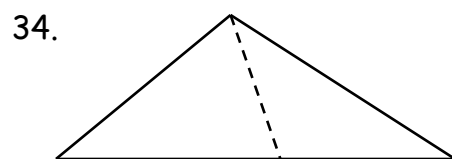
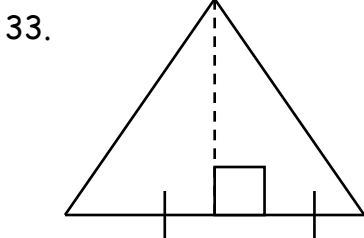
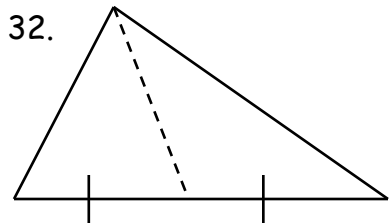
Longest: _____ Middle: _____ Shortest: _____



Classify the triangle by its angles: _____

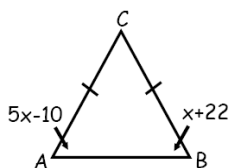
Classify the triangle by its sides: _____

Section 4: State whether the dashed line is the median, altitude, angle bisector or perpendicular bisector, or none.

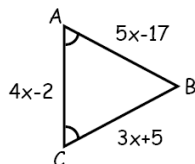


Section 5: Find the unknown value for x.

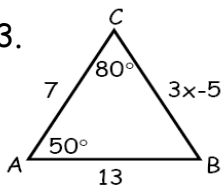
41.



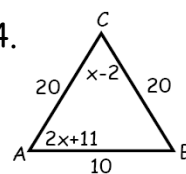
42.



43.



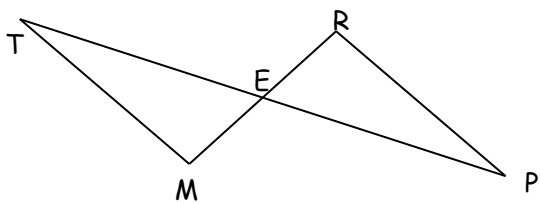
44.



Section 6: Proof Practice.

45. Given: E is the midpoint of TP and MR

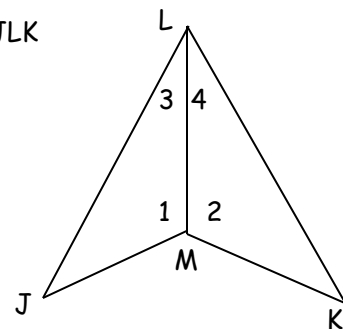
Prove: $\triangle TEM \cong \triangle PER$



46. Given: LM bisects $\angle JLK$

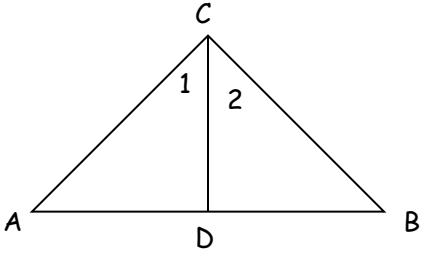
$m\angle 1 = m\angle 2$

Prove: $\triangle LMJ \cong \triangle LMK$



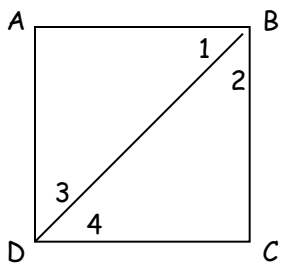
47. Given: D is the midpoint of AB; $CA \cong CB$

Prove: $\angle 1 \cong \angle 2$



48) Given: $AB \parallel DC$; $AB \cong DC$

Prove: $AD \parallel BC$



49. Given: $BA \perp YZ$; BA bisects $\angle YBZ$

Prove: $\triangle AYB \cong \triangle AZB$

