Parallel Lines cut by a Transversal

6.10A
Expressions, equations, and relationships. The student applies mathematical process standards to use equations and inequalities to solve problems. The student is expected to:
(A) model and solve one-variable, one-step equations and inequalities that represent problems, including geometric concepts;

7.11C
Expressions, equations, and relationships. The student applies mathematical process standards to solve one-variable equations and inequalities. The student is expected to:
(C) write and solve equations using geometry concepts, including the sum of the angles in a triangle, and angle relationships.

8.8D
Expressions, equations, and relationships. The student applies mathematical process standards to use one-variable equations or inequalities in problem situations. The student is expected to:
(D) use informal arguments to establish facts about the angle sum and exterior angle of triangles, the angles created when parallel lines are cut by a transversal, and the angle-angle criterion for similarity of triangles.

My teacher's learning goals for me are that I will be able to:

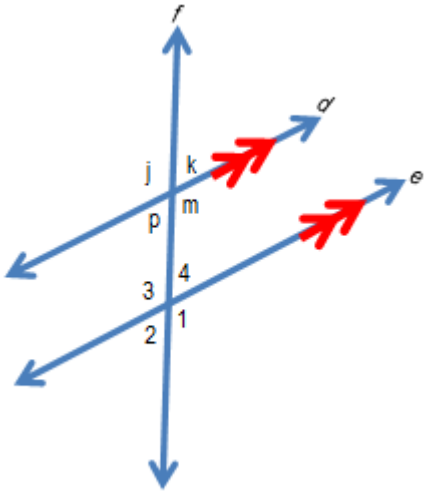
- Classify angle pairs using specific math vocabulary.
- Calculate angle measures and prove using math vocabulary.
- Write an equation and solve it to calculate the missing measure.
- **Don't get tricked...Answer what the question is asking me to calculate!**

I will master the **learning goals** for **Parallel Lines cut by a Transversal** with at least _____ mastery by:

1) **Asking** questions when I'm not sure of something and **answering** questions when I know the answer.
2) _____
3) _____

Exploring Parallel Lines Cut By a Transversal
*You should have "patty paper" for this activity.

There is a lot of vocabulary that you will use to support your solution for missing angle measures.



Parallel Lines

Transversal Line

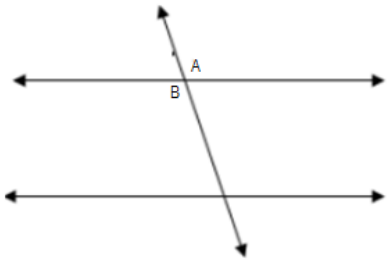
What Do you notice about the angles formed when Parallel lines are cut By a transversal?

Vertical Angles	Corresponding Angles
Alternate Exterior Angles	Alternate Interior Angles
Same-Side Exterior Angles	Same-Side Interior Angles

I do... you follow along and process

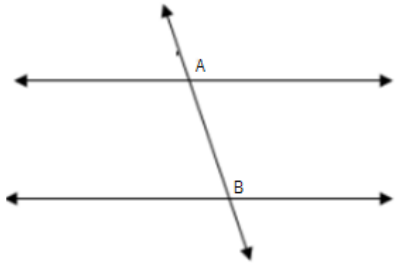
Classifying Angles formed when Parallel Lines are Cut by a Transversal

A.



Classified as

B.



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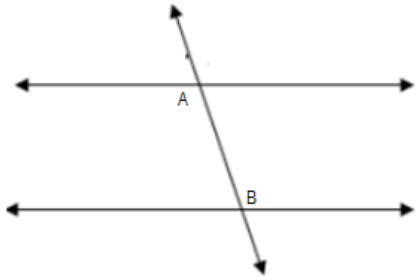
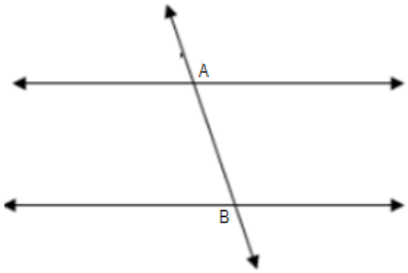
C.



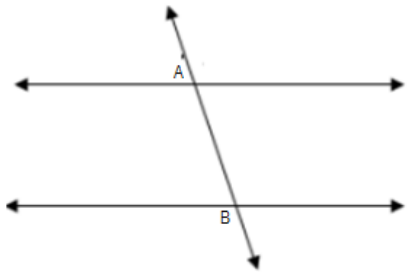
Classified as

D.



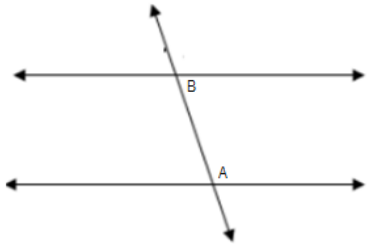
Classified as

E.



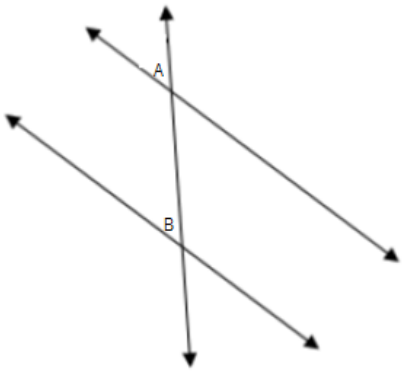
Classified as

F.



Classified as

G.



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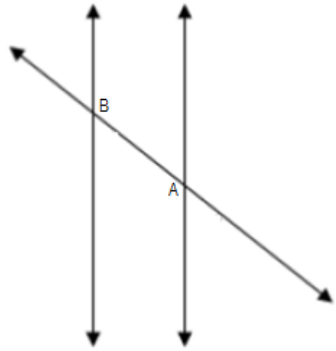
H.



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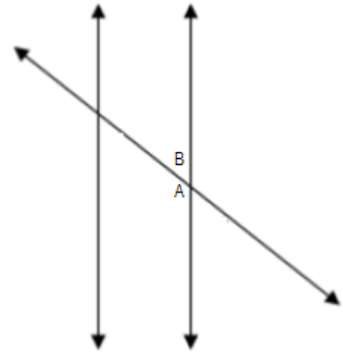

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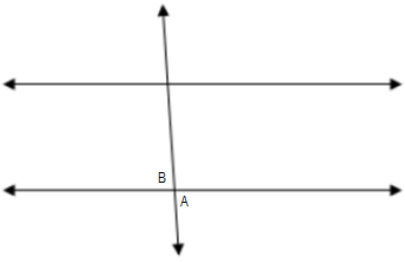
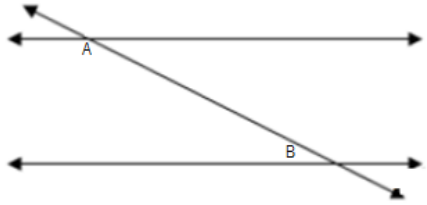
J.



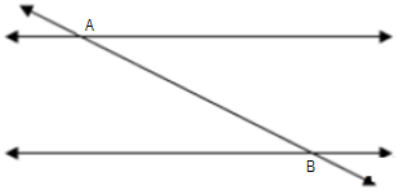
Classified as

K.



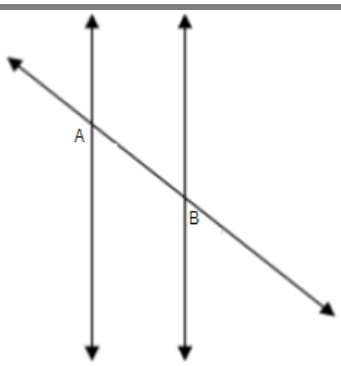
Classified as

L.



Classified as

M.



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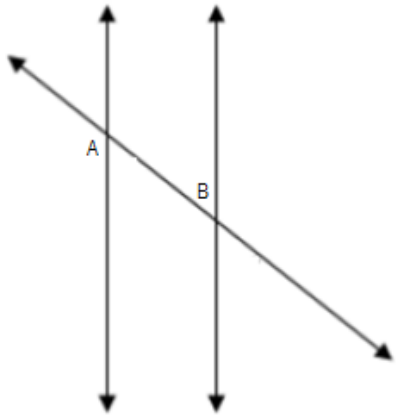
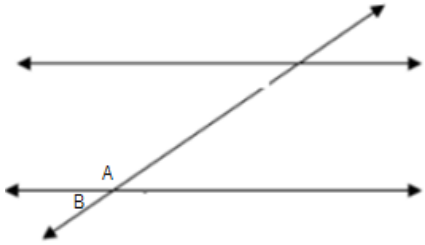
N.



Classified as

O.

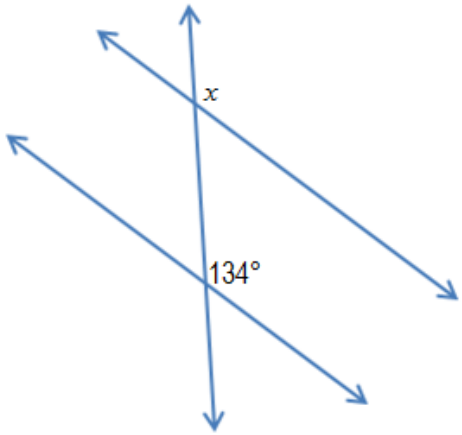


Classified as

I do... you follow along and process

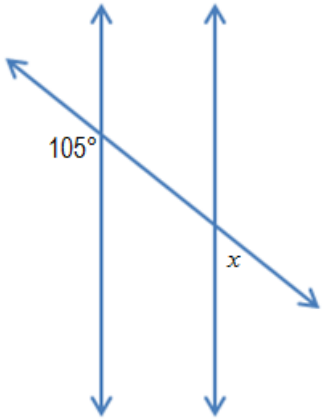
Solving for Angles formed when Parallel Lines are Cut by a Transversal

P.



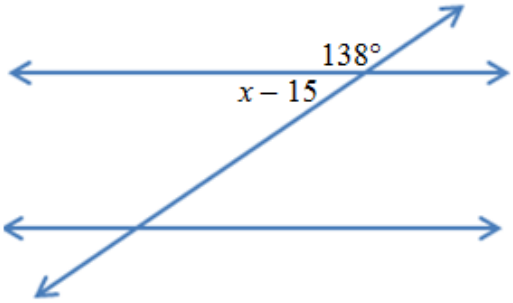
$x =$ _____

Q.



$x =$ _____

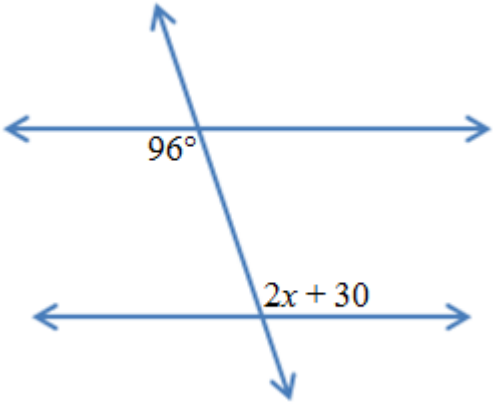
R.



$x =$ _____

$x - 15 =$ _____

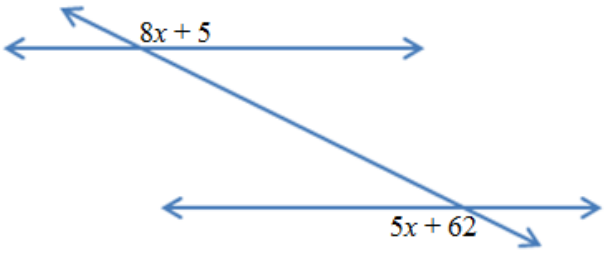
S.



$x =$ _____

$2x + 30 =$ _____

T.

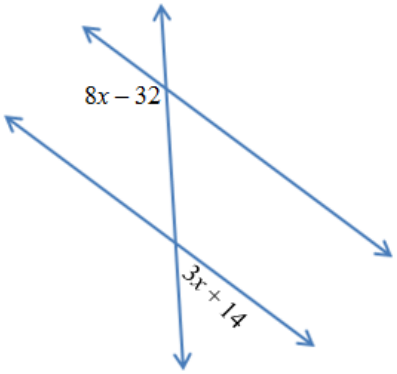


$x =$ _____

$8x + 5 =$ _____

$5x + 62 =$ _____

U.



$x =$ _____

$8x - 32 =$ _____

$3x + 14 =$ _____