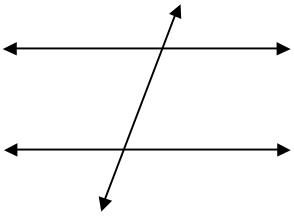
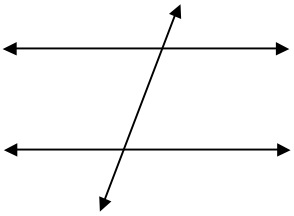
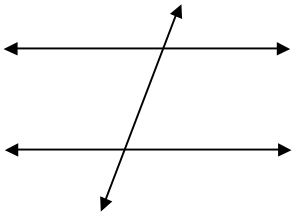
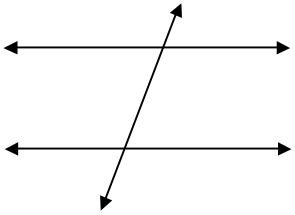
Geometry Regents Lomac 2015-2016 **Date** 11/4 **due** 11/5 | **Angles Proving Parallel Lines 3.8R**

Name _____ **Per**_____

LO: I can can use the converse of theorems to prove lines are parallel.

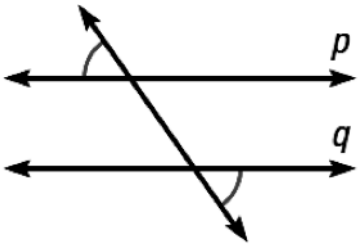
☐ **DO NOW** On the back of this packet

☐ (1) N11, N12 **Need to Know: Lines are parallel IF and ONLY IF:**

Corresponding Angles	**Alternate Exterior Angles**	**Alternate Interior Angles**	**Same Side Interior Angles**
			
_____	_____	_____	_____

☐ (2) N11, N12 **Angles: Proving that lines are parallel**

☐ (a) Is line *p* parallel to line *q*?



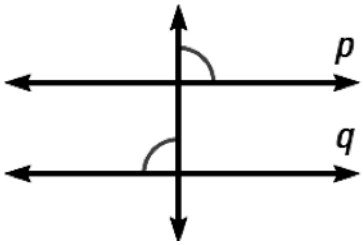
I can/cannot prove that _____

because _____

_____

_____

☐ (b) Is line *p* parallel to line *q*?



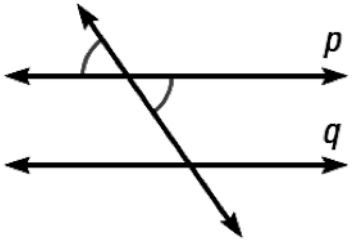
I can/cannot prove that _____

because _____

_____

_____

☐ (c) Is line *p* parallel to line *q*?



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_____

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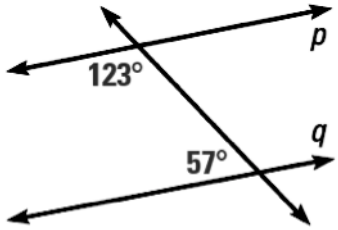
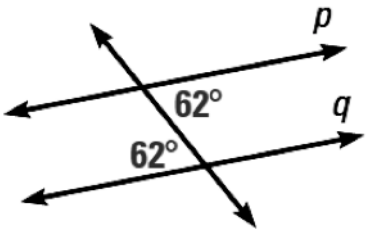
_____

☐ (2) **Angles: Proving that lines are parallel**

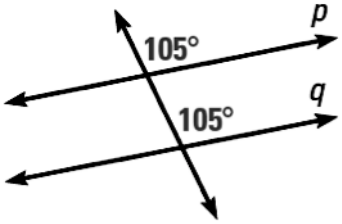
☐ (d) Is line *p* parallel to line *q*?



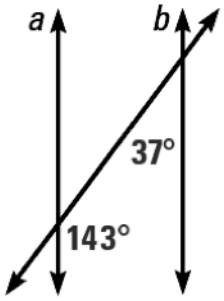
☐ (e) Is line *p* parallel to line *q*?



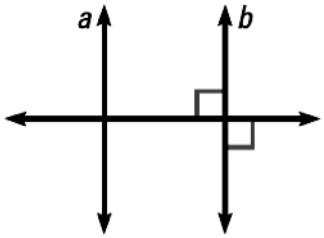
☐ (f) Is line *p* parallel to line *q*?



☐ (g) Is line *a* parallel to line *b*?

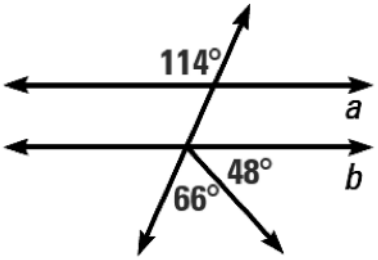


☐ (h) Is line *a* parallel to line *b*?

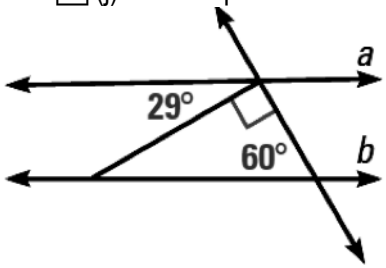


☐ (2) **Angles: Proving that lines are parallel**

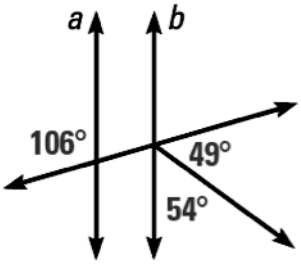
☐ (i) Is line *a* parallel to line *b*?



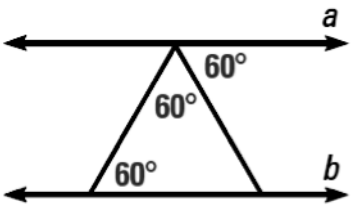
☐ (j) Is line *a* parallel to line *b*?



☐ (k) Is line *a* parallel to line *b*?

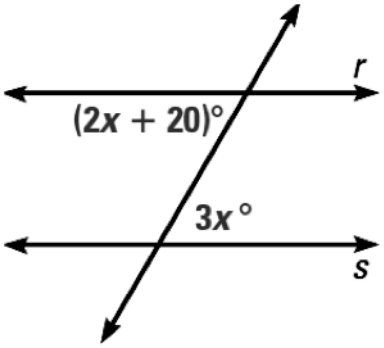


☐ (l) Is line *a* parallel to line *b*?



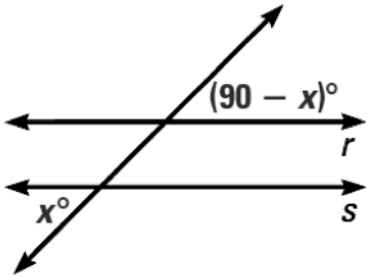
☐ (3) **Angles: Values of *x* that prove that lines are parallel**

☐ (a) What value of x will result in parallel lines?



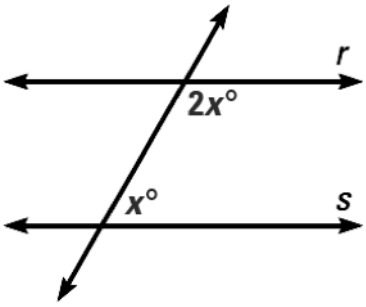
I know that _____ will be parallel to _____ when x is _____ because _____

☐ (b) What value of x will result in parallel lines?

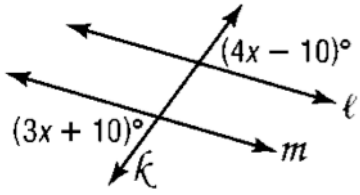


I know that _____ will be parallel to _____ when x is _____ because _____

☐ (c) What value of x will result in parallel lines?

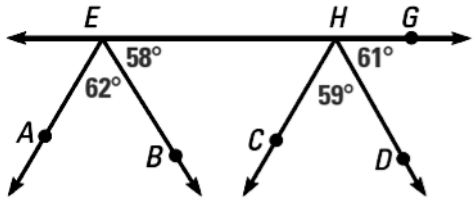


☐ (d) What value of x will result in parallel lines?



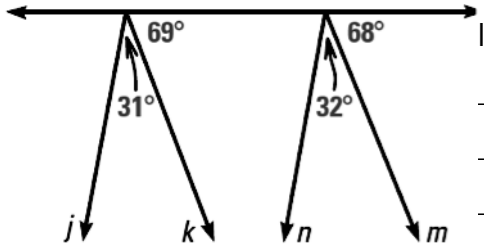
☐ (4) **Angles: Proving that lines are parallel**

☐ (a) Prove that lines are parallel or explain why it is not possible.



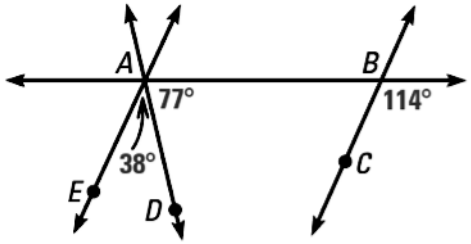
I know that _____ because _____

☐ (b) Prove that lines are parallel or explain why it is not possible

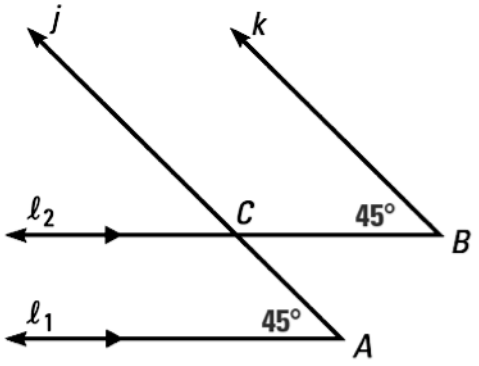


I know that _____ because _____

☐ (c) Prove that lines are parallel or explain why it is not possible



☐ (d) Prove that lines are parallel or explain why it is not possible

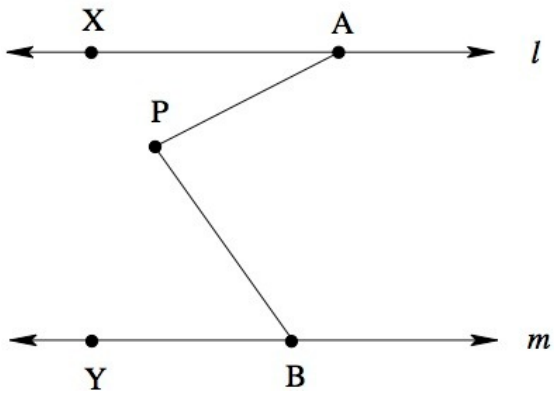


☐ (5) **Exit Ticket**

ON THE LAST PAGE

☐ (6) **Homework**

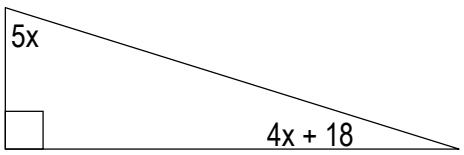
☐ (1) PROVE: ∠XAP + ∠YBP = ∠APB



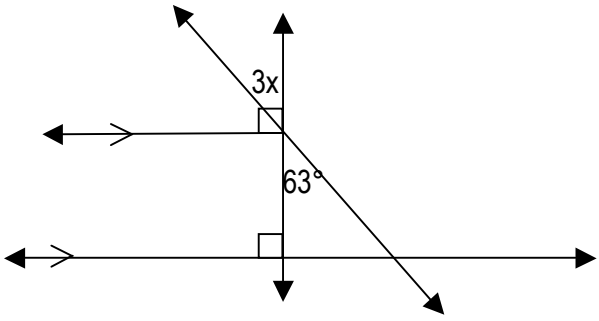
I know that . . .	because . . .

☐ (2) Find the measure of *x* in each diagram. State a reason for each step that you take.

☐ (a)



☐ (b)



☐ (6) cont. **Homework**

☐ (3)

☐ (a) Construct a 60° angle (What shape has 60° angles?)

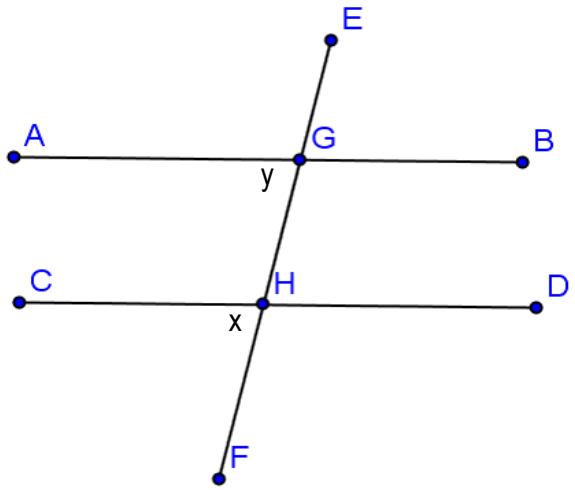
☐ (b) Construct a 30° angle (How can part a help you?)

☐ (c) Construct a 15° angle

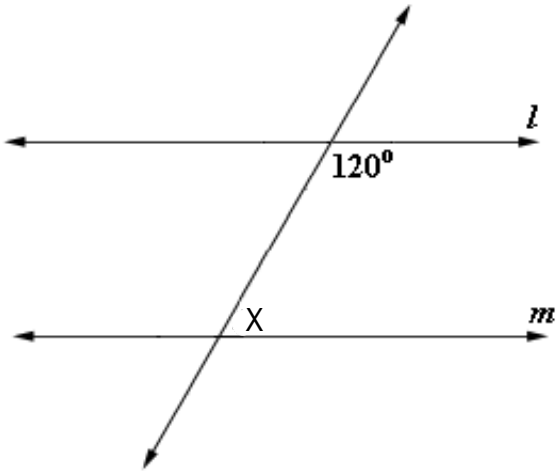
Exit Ticket **Name**_____ **Date** _____ **Per**_____ **3.8R**

(1) The LO (Learning Outcomes) are written below your name on the front of this packet. Demonstrate your achievement of these outcomes by doing the following:

***(a)Given that x* = y, prove that AB || *EF* .**

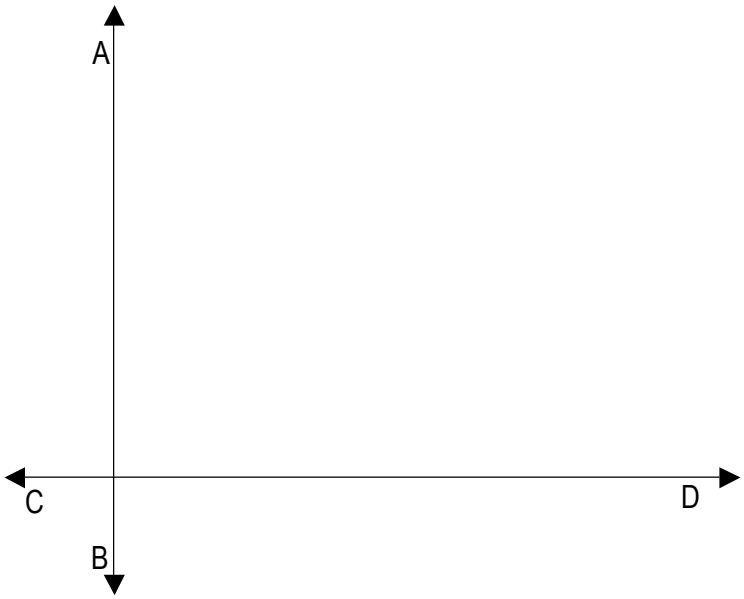


(b) For what value of x will *l* be parallel to *m*?



DO NOW **Name**_____ **Date** _____ **Per**_____ **3.8R**

(1) In the diagram, $\overleftrightarrow{AB} \perp \overleftrightarrow{CD}$. Construct line EF parallel to $\overleftrightarrow{CD}$. (There are more ways than one to do this.)



(2) Label the intersection of $\overleftrightarrow{AB}$ and $\overleftrightarrow{CD}$ point G. Label the intersection of $\overleftrightarrow{EF}$ and $\overleftrightarrow{CD}$ with an H.
(3) Consider a square GHIJ that you might finish constructing. Spend no more than 1 minute trying to complete the construction of square GHIJ.

(4) Describe why the cartoon below is supposed to make people smile. REALLY think about it.