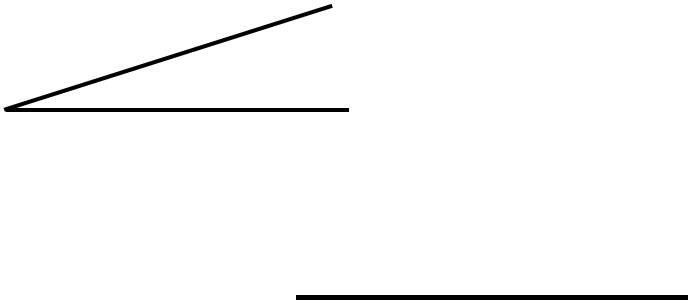
5C Constructing Parallel Lines

Name: _____Per: _____

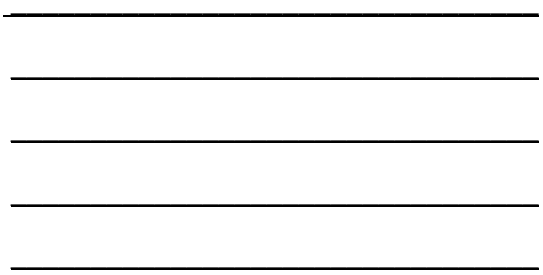
SHOW YOUR WORK FOR FULL CREDIT. NO WORK IN PEN.

Construct the angle onto the line segment given. List your steps to how you constructed your angle.

1.

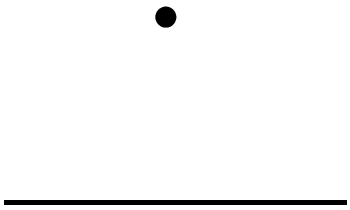


2.

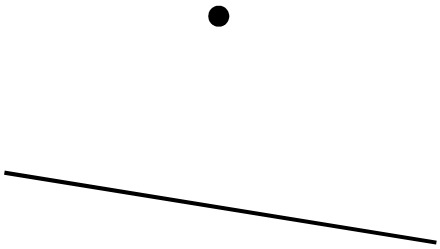


Given the segment and point, construct a parallel line passing through the point. Show markings.

3.



4.



Construct a parallel line to the given segment. Show markings.

5.

6.

7. Explain your steps and how you know that your lines are parallel._____

_____

_____

8. Find all missing angle measures for the figure below. Explain how you know.

a. $m\angle A =$ _____° _____

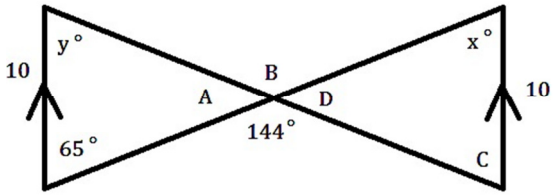
b. $m\angle B =$ _____° _____

c. $m\angle C =$ _____° _____

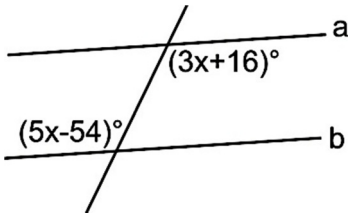
d. $m\angle D =$ _____° _____

e. $x =$ _____° _____

f. $y =$ _____° _____



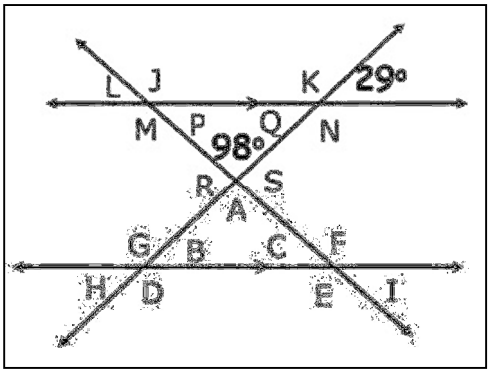
9. Using the image to the right and $a \parallel b$. Find the value of x.



a. x = _____

b. What is the relationship between the two angles?

10. Find the missing angles from the image below.



$\angle A =$ _____ $\angle B =$ _____ $\angle C =$ _____ $\angle D =$ _____ $\angle E =$ _____

$\angle F =$ _____ $\angle G =$ _____ $\angle H =$ _____ $\angle I =$ _____ $\angle J =$ _____

$\angle K =$ _____ $\angle L =$ _____ $\angle M =$ _____ $\angle N =$ _____ $\angle S =$ _____

$\angle P =$ _____ $\angle Q =$ _____ $\angle R =$ _____

11. Use the following image to answer the questions. $AB \parallel CD$.

a. If ∠CLK measures 120°, what is the measure of ∠AKJ? _____.

How do you know? _____

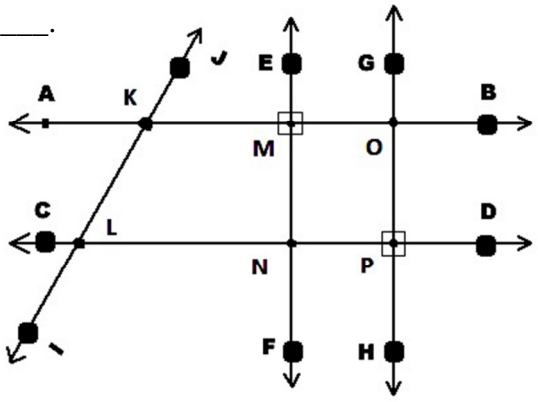
b. What would be the measure of ∠KLD? _____

c. What is the relationship between lines EF and GH?

_____

d. What is the relationship between lines EF and AB?

_____



e. If MN = 4 cm, what is OP? _____

f. If NP = 3 cm, what is MO? _____