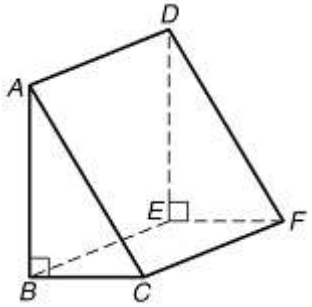
Geometry 1:Intro to Geometry
UNIT REVIEW

Name _____
Period _____ Date _____

G-CO.1:*I can define and identify basic geometric terms.*

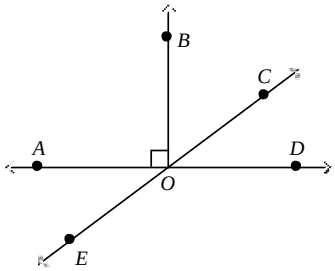
1. Use the figure below. Assume that lines that look parallel are parallel.



a) Name a pair of parallel lines

b) Name a pair of perpendicular lines

2. Use the diagram below to answer the following questions.

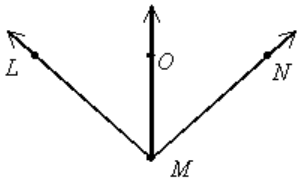


2a) Name a linear pair

2b) Name two complementary angles

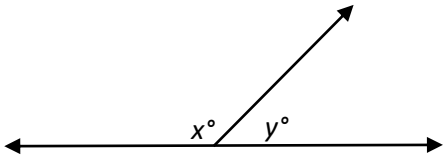
2c) Name a pair of adjacent angles

3. In the figure $\overline{MO}$ bisects $\angle LMN$, $m\angle LMO = (9x-14)°$, and $m\angle NMO = (x+74)°$. Solve for *x* and find $m\angle LMN$



x = _____
$m\angle LMN$ = _____

4. If $x > 100$, then what are the possible values of y? Explain.



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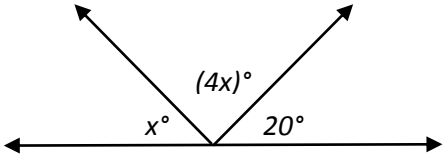
_____
_____
_____
_____

5. Given the following, find the length of BC.
- AB = 6
- BD = 15

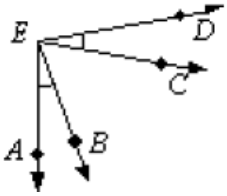
BC = _____

6. Using the diagram below, find x and show each step. You may not use every box.



Solution Steps

7. Circle all of the following statements that are definitely true about the diagram below. (There may be more than one answer.)



(a) $\angle AEB \cong \angle DEC$

(b) $\angle AEC$ is adjacent to $\angle BED$

(c) $\angle AEB$ and $\angle BEC$ are complementary

(d) $\angle AEB$ and $\angle BEC$ are supplementary

(e) $\overrightarrow{EC}$ bisects $\angle BED$

8. Part A: Draw a diagram that satisfies these three conditions:

- $\overrightarrow{EF}$ bisects acute $\angle BER$

Part B: If $m\angle REF = 30°$, find $m\angle BEF$, *and* $m\angle BER$. Explain how you found your answers.

_____

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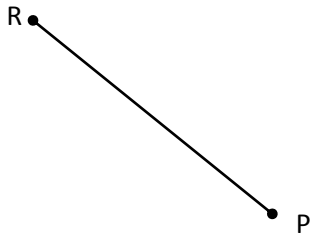
_____

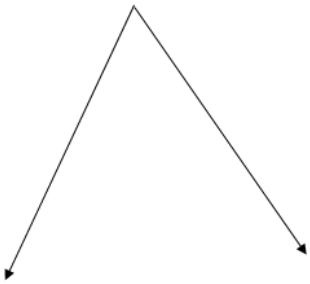
G-CO.12 *I can make the following constructions: copy a segment, copy an angle, perpendicular bisector, angle bisector*

9. Construct the perpendicular bisector of $\overline{RP}$



10. Draw acute $\angle ABC$ and then construct its bisector. Label all your points.

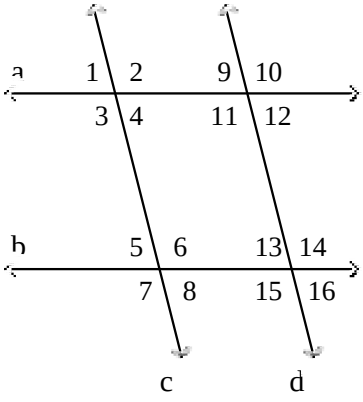
11. Construct an angle that is congruent to the angle below.



G-CO.9 *I can prove theorems about lines and angles.*

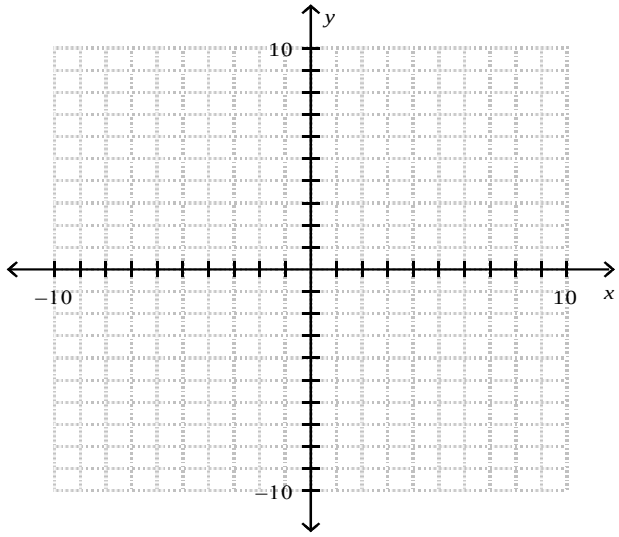
12. Which lines, if any, must be parallel based on the given diagram and information. Explain.

Given: $\angle 13 \cong \angle 12$



G-GPE.4*Use coordinates to prove simple geometric theorems algebraically.*

13. Given the following coordinates A (-1,6) and B (3,-2). Draw segment AB and plot the midpoint C of AB. Prove that C is the midpoint of AB by showing your calculations.



G-GPE.5 *Prove the slope criteria for parallel and perpendicular lines and use them to solve geometric problems.*

18. Given the equation 6y - 2x = 18, what would the slope of the line be that is:

a) Perpendicular

b) Parallel