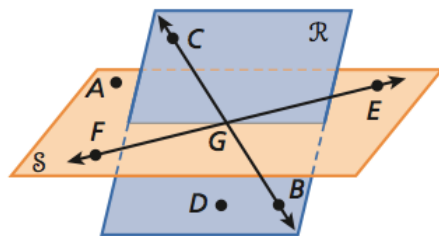


1. Name the following and be sure to use proper notation.

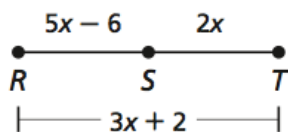


- a. four coplanar points \_\_\_\_\_
- b. a line containing B and C \_\_\_\_\_
- c. a plane that contains A, G, and E \_\_\_\_\_
- d. a ray in plane S \_\_\_\_\_
- e. a line in the same plane as point A \_\_\_\_\_

2. Draw and label the following:

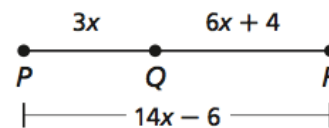
- a. a line containing P and Q
- b. a pair of opposite rays both containing C
- c.  $\overleftrightarrow{CD}$  intersecting plane  $\mathcal{P}$  at  $B$

3. S is between R and T. Find RT.



RT = \_\_\_\_\_

4. Q is between P and R. Find PR and PQ.



PR = \_\_\_\_\_

PQ = \_\_\_\_\_

5. U is the midpoint of segment TV.  $TU = 3x + 4$  and  $UV = 5x - 2$ . Find TU, UV, and TV.

TU = \_\_\_\_\_

UV = \_\_\_\_\_

TV = \_\_\_\_\_

6. E is the midpoint of segment DF.  $DE = 9x$  and  $EF = 4x + 10$ . Find DE, EF, and DF.

DE = \_\_\_\_\_

EF = \_\_\_\_\_

DF = \_\_\_\_\_

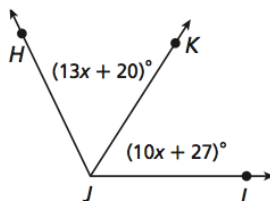
7.  $\overline{KM}$  bisects  $\angle JKL$ ,  $m\angle JKM = (3x + 4)^\circ$ , and  $m\angle MKL = (6x - 5)^\circ$ . Find  $m\angle JKL$ .

$m\angle JKL =$  \_\_\_\_\_

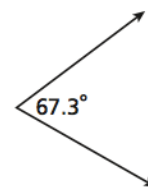
8.  $\overrightarrow{NP}$  bisects  $\angle MNQ$ ,  $m\angle MNP = (6x - 12)^\circ$ , and  $m\angle PNQ = (4x + 8)^\circ$ . Find  $m\angle MNQ$ .

$m\angle MNQ =$  \_\_\_\_\_

9.  $m\angle HJL = 116^\circ$ . Find  $m\angle HJK$



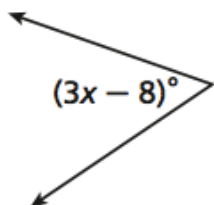
10. Find the supplement and complement of the angle.



Supplement = \_\_\_\_\_

Complement = \_\_\_\_\_

11. Find the supplement and complement of the angle.



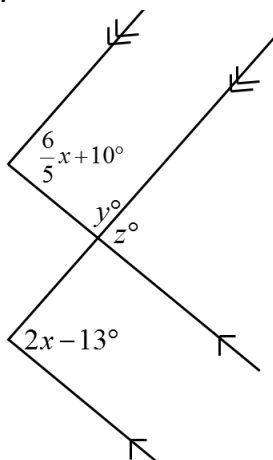
Supplement = \_\_\_\_\_

Complement = \_\_\_\_\_

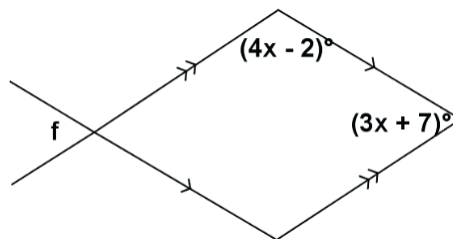
12. An angle measures 5 degrees more than 4 times its complement. Find the measure of the complement.

Complement = \_\_\_\_\_

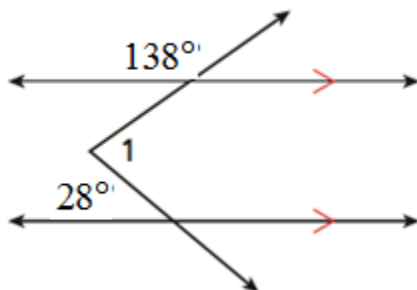
13. Find the value of  $x$ ,  $y$  and  $z$ .



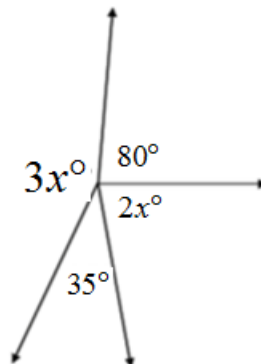
14. Solve for  $\angle f$  and each other angle that has information in it.



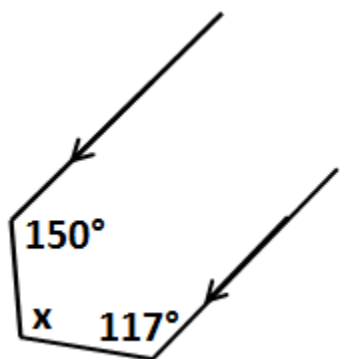
15. Find  $m\angle 1$



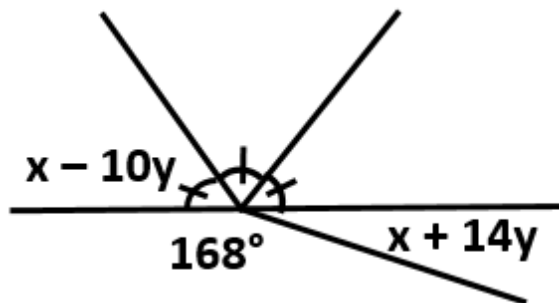
16. Find the measure of each missing angle



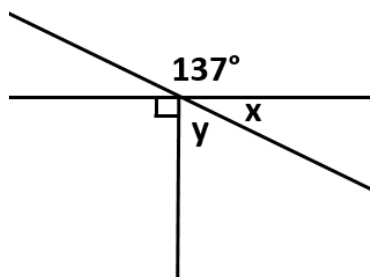
17. Find the value of x.



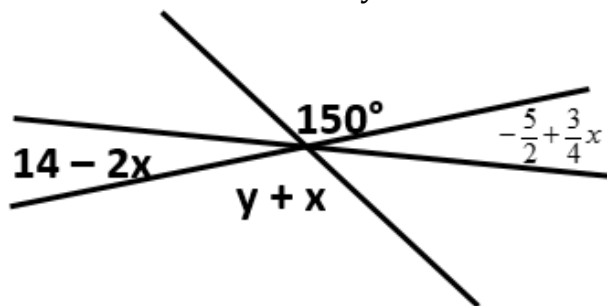
18. Find the value of x and y and each angle measure.



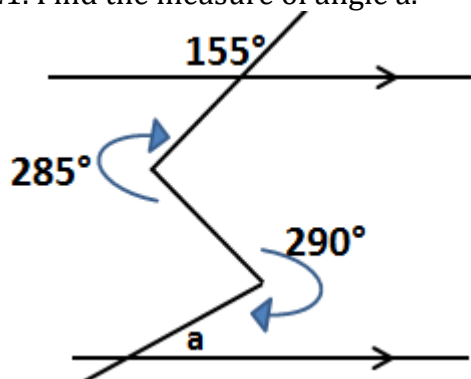
19. Find the value of x and y.



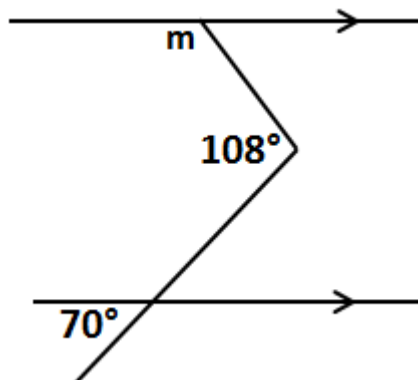
20. Find the value of x and y.



21. Find the measure of angle a.



22. Find the measure of angle m.



Constructions

23. Draw a  $65^\circ$  angle  
 - Label it  $\angle MPO$   
 - Use a compass to copy the angle to  $\angle M'P'O'$   
 - Bisect the original angle using a compass  
 - Mark any congruent parts

24. Draw segment  $AB = 14$  cm  
 - Create the perpendicular bisector of segment  $AB$  using a compass  
 - Label the midpoint as  $R$   
 - Mark any congruent parts on segment  $AB$ .

25. Use your compass to construct an equilateral triangle.  
 - Mark any congruent parts.  
  
 Give specific instructions that would tell someone else how to create an equilateral triangle.