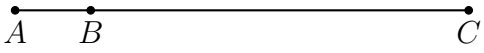
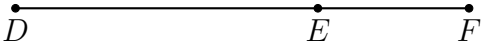
1.3 Classwork: Geometric conventions

1. Given $\overline{ABC}$, $AB = 2$, and $AC = 12$. Find BC.

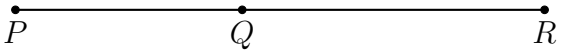


2. Given $\overline{DEF}$, $DE = 3\frac{1}{3}$, and $EF = 1$.
   (a) Find DF.



   (b) The postulate used in this problem is the _____.

3. Given $\overline{PQR}$, $PQ = x - 2$, $QR = x$, $PR = 10$. Find PQ.
   (a) Label the diagram with the given values.



   (b) Write an equation:

   (c) Solve for x

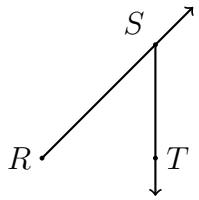
   (d) Answer the question.

   Find PQ by substituting for x.

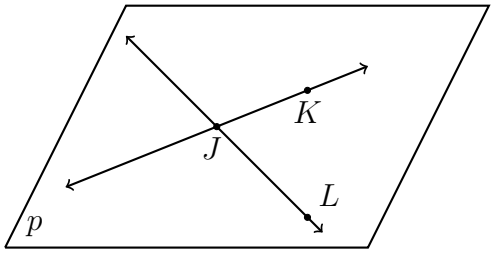
   (e) Check your answer

4. Points that are all located on the same plane are _____.

5. Write down the name of two line segments shown in the diagram below using proper geometric notation.



6. Identify two lines in the given plane.



7. For each example, explain the error made drawing $\overrightarrow{JK}$.

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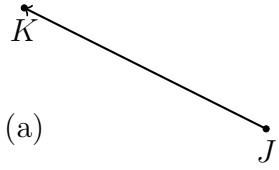
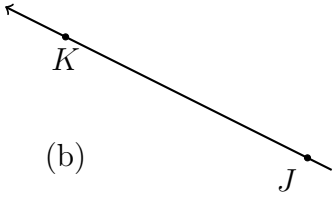
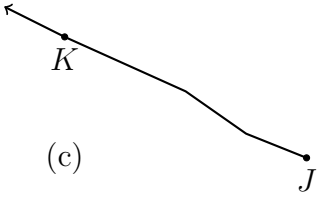


(a)



(b)



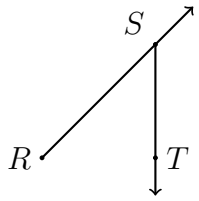
(c)

8. Points that are all located on the same line are _____.

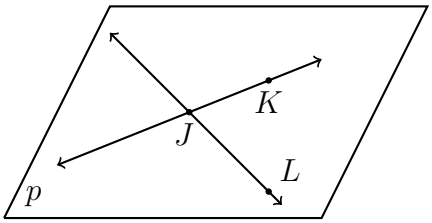
9. Line segments that have the same length are _____.

10. Points that are all located on the same plane are _____.

11. Write down the name of two line segments shown in the diagram below using proper geometric notation.

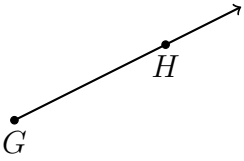


12. Identify two lines in the given plane.



13. Points that are all located on the same line are _____.

14. Use symbols to write the name of each geometric figure.



(a)

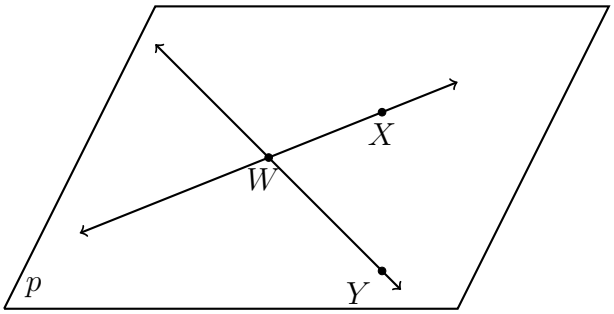
(b)

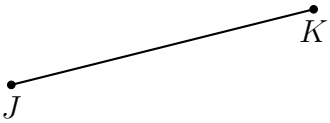
(c)

15. A flat surface is a(n) _____.

16. Two line segments or angles of equal measure are _____.

17. Identify two rays in the given plane.

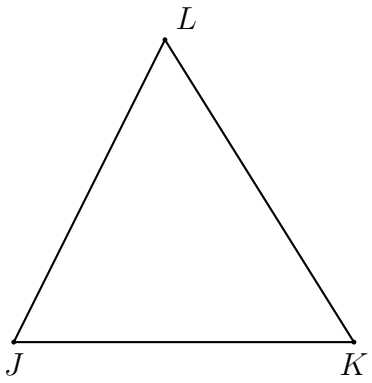




18. Use symbols to write the name of the given figure.

19. A(n) _____ is a portion of a line that includes two points and all of the collinear points between the two points.

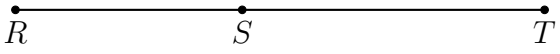
20. Given $\triangle JKL$ with $\overline{JK} \cong \overline{KL}$. On the diagram mark the congruent line segments with tick marks.



21. Draw and label a line segment $\overline{AB}$ such that the distance between points A and B is 6 cm.

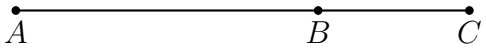
22. Given the rectangle $ABCD$ shown below.
    (a) Measure and mark the length and width of the rectangle in centimeters.
    (b) Calculate the area of the rectangle in square centimeters. (show your work)

23. Do Now: Given $\overline{RST}$, $RS = 3\frac{2}{3}$, and $RT = 9\frac{1}{3}$. Find ST.



24. Given $\overline{ABC}$, $AB = 3.8$, and $BC = 1.7$.

(a) Find AC.



(b) The postulate used in this problem is the _____.