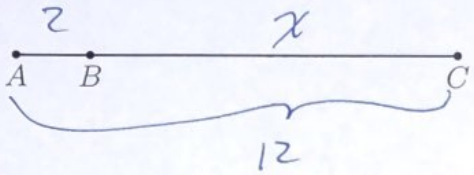
BECA / Dr. Huson / Geometry 01-Intro
1.3 Pretest (open book)

Name: Solutions

1-3 Classwork: Segment Addition Pretest, Vocabulary

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

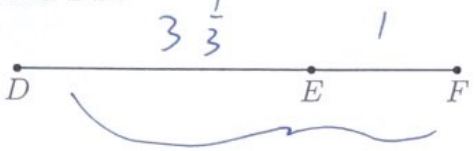


$2 + x = 12$
$-2 \quad -2$
$x = 10$

2. Do Now: Given $\overline{DEF}$, $DE = 3\frac{1}{3}$, and $EF = 1$.

(a) Find DF.

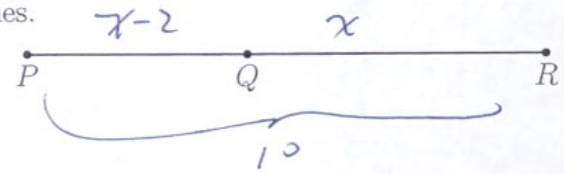
$DF = 3\frac{1}{3} + 1 = 4\frac{1}{3}$



(b) The postulate used in this problem is the Segment addition postulate

3. Do Now: Given $\overline{PQR}$, $PQ = x - 2$, $QR = x$, $PR = 10$. Find PQ.

(a) Label the diagram with the given values.



(b) Write an equation:

$(x-2) + x = 10$

(c) Solve for x

$2x - 2 = 10$
$+2 \quad +2$
$2x = 12$
$x = 6$

(d) Answer the question.
Find PQ by substituting for x.

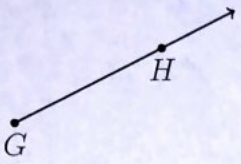
$PQ = (6) - 2 = 4$

(e) Check your answer

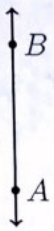
$4 + (6) = 10$ ✓

4. Points that are all located on the same line are Collinear.

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

(a) 

$\overrightarrow{GH}$

(b) 

$\overleftrightarrow{AB}$

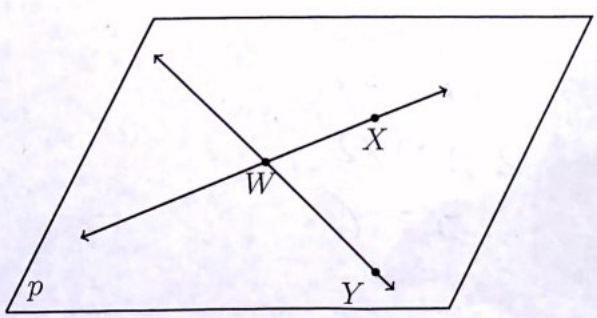
(c) 

$\overline{EF}$

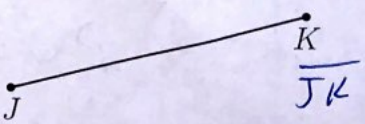
6. A flat surface is a(n) plane.

7. Two line segments or angles of equal measure are Congruent.

8. Identify two rays in the given plane.



$\overrightarrow{WX}$
$\overrightarrow{WY}$

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

$\overline{JK}$

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

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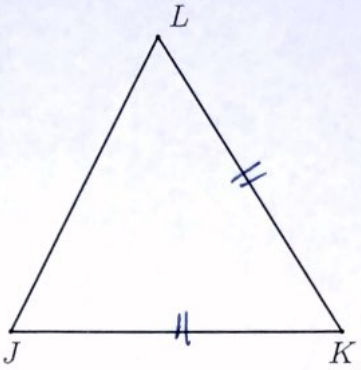
11. Given $\triangle JKL$ with $\overline{JK} \cong \overline{KL}$. On the diagram mark the congruent line segments with tick marks.

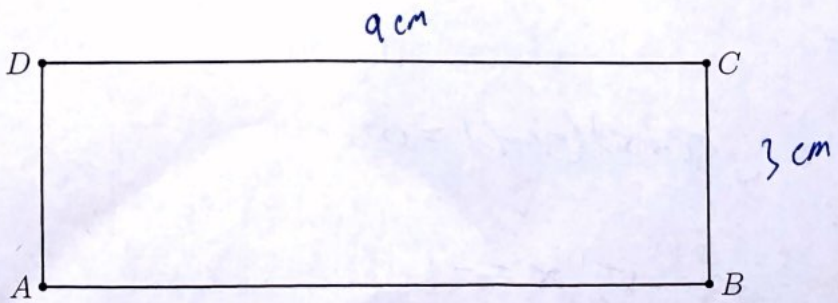


12. Draw and label a line segment $\overline{AB}$ such that the distance between points A and B is 6 cm.

13. 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)



$A = 9 \times 3 = 27 \quad cm^2$

1.3 Pretest Solutions

14. Early finishers: In the following two problems, solve for the value of x.

(a) $2x + 3 = x + 9$

$-x \quad -3 \quad -x \quad -3$

$x = 6$

(b) $\frac{1}{2}(11 - x) = 5$ x 2

$11 - x = 10$

$-11 \qquad -11$

$-x = -1$

$x = 1$

15. Given the linear function $f(x) = 3x + 4$.

(a) Find $f(0)$

$f(0) = 3(0) + 4$

$= 4$

(b) $f(x) = 10$. Find x.

$f(x) = 3x + 4 = 10$

$-4 \quad -4$

$3x = 6$

$x = 2$

16. Given $x^2 + 6x + 5 = 0$. Factor and find the roots.

$(x+5)(x+1) = 0$

$x = -5, \; x = -1$