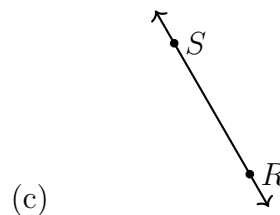
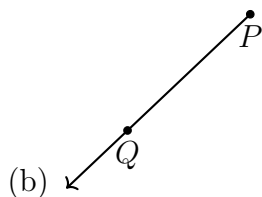
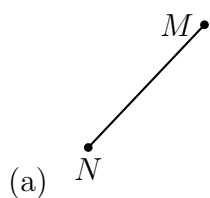


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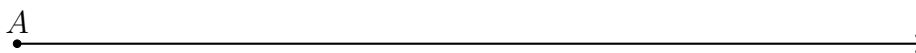
1.6 Pre-test review: Length and perimeter, geometric notation

A. Conventions: terminology, notation, diagramming

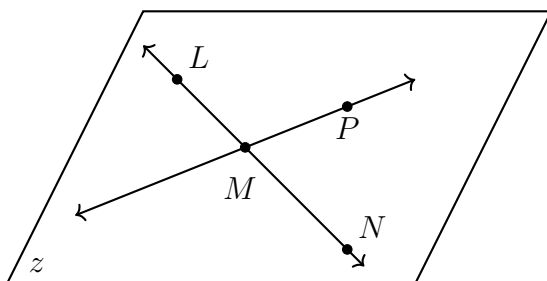
1. Use symbols to write the name of each geometric figure.



2. Objects in the same plane are _____.
3. A word that means that two lines cross is that they _____.
4. Write the symbol that means congruent.
5. Two things that are next to each other are _____.
6. Mark point B on the ray exactly 5 centimeters from the endpoint A . (measure it)



7. Various objects are depicted. Circle True or False for each statement.



- (a) T F The line \overleftrightarrow{MP} is shown.
- (b) T F The plane is labeled p .
- (c) T F \overrightarrow{LM} and \overrightarrow{NM} are opposite rays.
- (d) T F M is the intersection of two lines.

8. Given the expression $\frac{2}{3}x$, write down each:

(a) The fraction's numerator

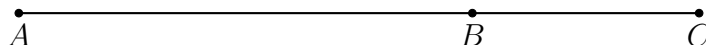
(b) The variable

Name:

B. Modeling situations with algebra

9. Collinear points are shown below, \overline{ABC} .

(a) Measure and label the lengths AB and BC to the nearest centimeter.

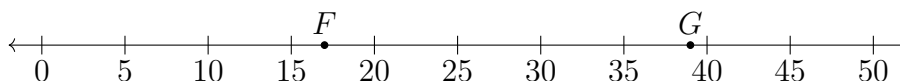


(b) Write an equation employing the Segment Addition Postulate.

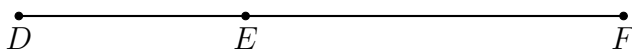
(fill in the blanks with values in centimeters)

$$AB = \underline{\hspace{2cm}} + \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

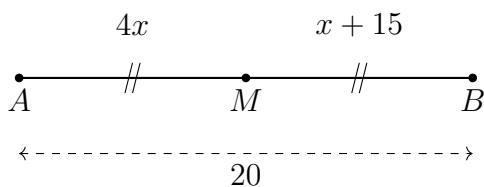
10. Points $F = 17$ and $G = 39$ are shown below. Find FG .



11. Given \overline{DEF} , $DE = 5\frac{3}{4}$, and $EF = 8\frac{1}{2}$. Find DF as a mixed fraction.



12. As diagrammed below, point M is the midpoint of \overline{AB} , $AM = 4x$, $MB = x + 15$, $AB = 20$. Circle True or False for each equation.



(a) T F $4x = x + 15$

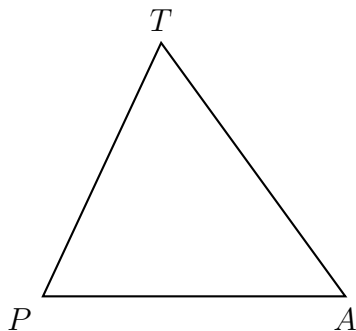
(b) T F $4x = 20$

(c) T F $4x + (x + 15) = 20$

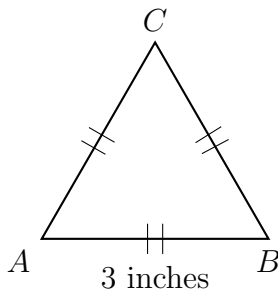
(d) T F $2(x + 15) = 20$

C. Perimeter and special shapes

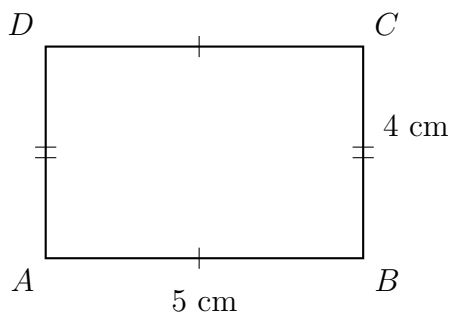
13. Given isosceles $\triangle PAT$ with $\overline{PA} \cong \overline{AT}$. On the diagram mark the congruent line segments with tick marks.



14. Given equilateral triangle ABC with $AB = 3$ inches. Find the perimeter of $\triangle ABC$.



15. Rectangle $ABCD$ is shown with length 5 centimeters and width 4 cm. Fill in the blanks and find the rectangle's perimeter.



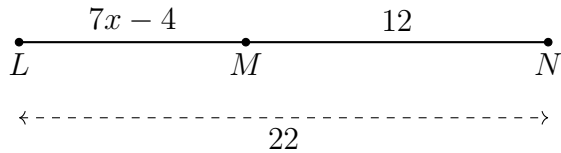
$$P = 5 + 4 + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$$

16. The perimeter of a square is 48 centimeters. Find the length of the square's sides.

Name:

D. Solving algebraic equations for one variable

17. Given \overline{LMN} , $LM = 7x - 4$, $MN = 12$, $LN = 22$.



- (a) Write down an equation to represent the situation.
- (b) Solve for x .
- (c) Check your answer.
18. As diagrammed below, point M is the midpoint of \overline{AB} , $AM = 4x$, $MB = x + 15$. Solve for x . (show the check for full credit)

