Geometry Unit 1: Extra slides for Segments, Length, and Area Bronx Early College Academy

Christopher J. Huson PhD

8-23 September 2022

Extra 1.1 Segment addition

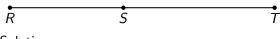
Sandbox

Segment addition with fractions

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

Mark the diagram and state your answer as a fraction

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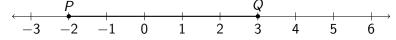
Solution

Apply the Segment Addition Postulate Show your work by marking the diagram and writing an equation.

Given \overline{DEF} , DE = 8.5, and EF = 2.5. Find DF.

Find the length of the line segment \overline{PQ} .

Given P(-2) and Q(3), as shown on the number line.

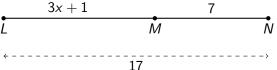


State an equation and the solution.

Check your work by counting the distance. Leave marks to show your work.

Segment addition practice

Do Now: Given \overline{LMN} , LM = 3x + 1, MN = 7, LN = 17. Find x.

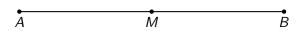


- 1. Write down an equation to represent the situation.
- 2. Solve for x.
- 3. Check your answer.

Midpoint example

Given M bisects \overline{AB} , AM = 5x + 2, MB = 20.

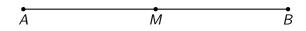
- 1. Mark the diagram with the values and tick marks
- 2. Write an equation and solve for x
- 3. Check your result



Solve for x given a bisector

Given M is the midpoint of \overline{AB} , AM = 5x + 2, MB = 20.

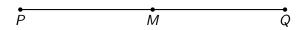
- 1. Mark the diagram with the values and tick marks
- 2. Write an equation and solve for x
- 3. Check your result



Segment bisector example

Given M bisects \overline{PQ} , PM = x + 7, PQ = 23.

- 1. Mark the diagram with the values and tick marks
- 2. Write an equation and solve for x
- 3. Check your result



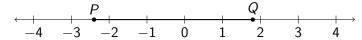
Fraction and negatives+decimals practice problems

1. Do Now: Given \overline{DEFG} , $DE=3\frac{1}{4}$, $EF=6\frac{1}{4}$, and $FG=1\frac{3}{4}$. (diagram not to scale)

Find DG, expressed as a fraction, not a decimal.



2. Given P(-2.4) and Q(1.8), as shown on the number line. Find the length of the line segment \overline{PQ} .



Sandbox

- (i) one
- (ii) two
- (iii) three

T F one

T F two

T F three

End point The point at the end of a line segments

Line An infinite number of points extending in both
directions forever

Definition

A prime number is a number that has exactly two divisors.