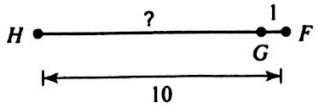
Kuta Software - Infinite Geometry

Name_____

The Segment Addition Postulate

Date_____ Period____

Find the length indicated.

1) 

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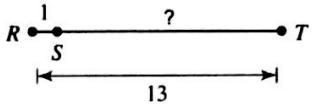
2) 

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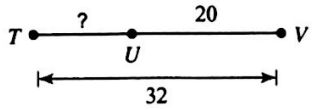
3) 

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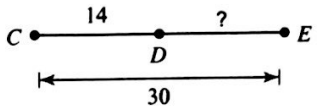
4) 

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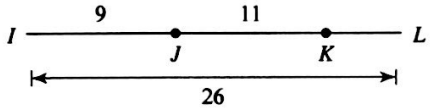
5) Find *KL*



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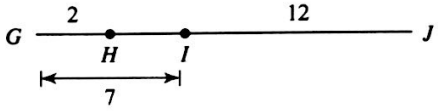
6) Find *HJ*



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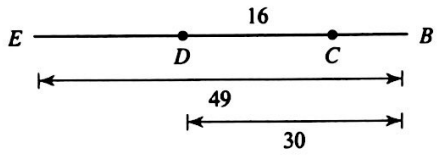
7) Find *EC*



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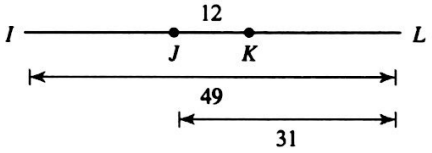
8) Find *IK*



30

Points A, B, and C are collinear. Point B is between A and C. Find the length indicated.

9) Find *AC* if *AB* = 16 and *BC* = 12.

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10) Find *AC* if *AB* = 13 and *BC* = 9.

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Points A, B, and C are collinear. Point B is between A and C. Solve for x.

11) $AC = 3x + 3$, $AB = -1 + 2x$, and $BC = 11$. Find x.

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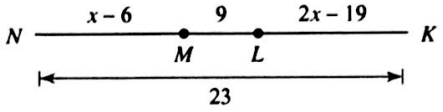
12) $AC = 22$, $BC = x + 14$, and $AB = x + 10$. Find x.

−1

Solve for x.

13) 

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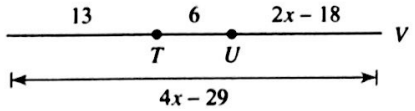
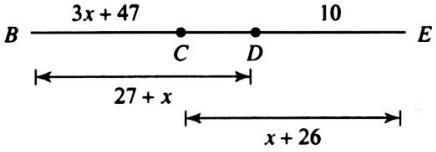
14) 

15

Find the length indicated.

15) Find CE



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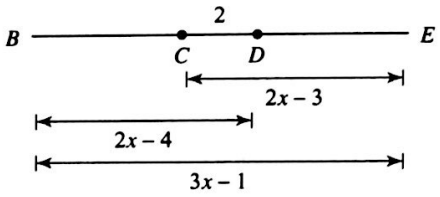
16) Find BD



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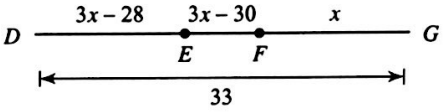
17) Find DE



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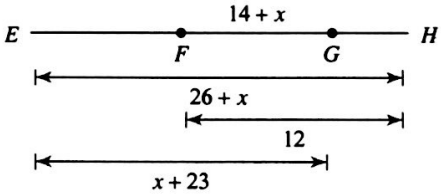
18) Find EG



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Critical thinking questions:

19) Points A, B, C, D, and E are collinear and in that order. Find AC if $AE = x + 50$ and $CE = x + 32$.

$AC = AE - CE = 18$

20) Write a segment addition problem using three points (like question 11) that asks the student to solve for x but has a solution $x = 20$.

Many possibilities: $AB = x$, $BC = 20$, $AC = 40$