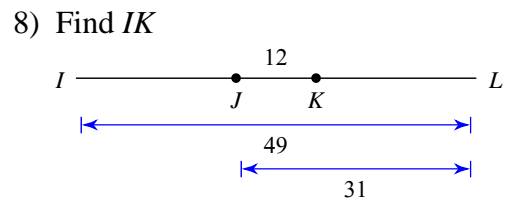
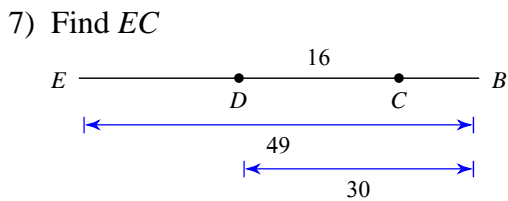
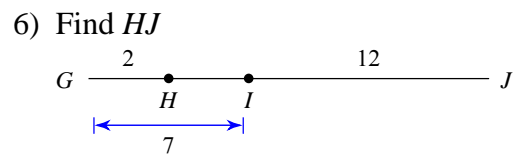
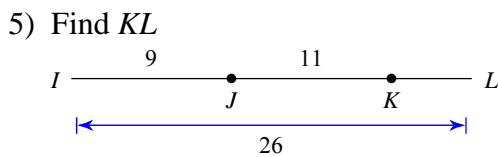
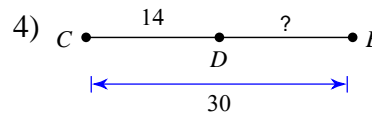
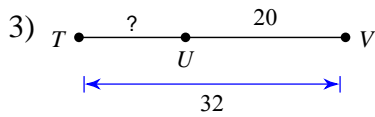
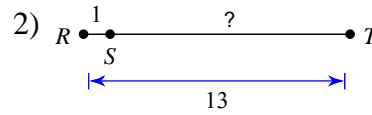
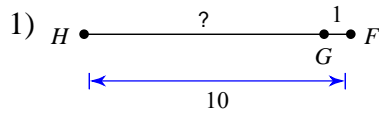


The Segment Addition Postulate

Find the length indicated.



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 $BC = 12$.

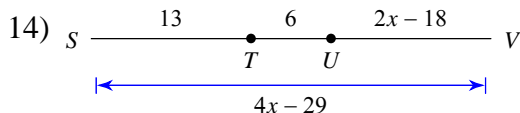
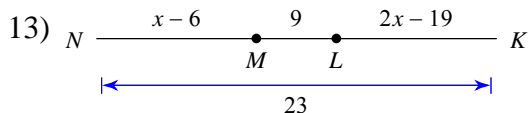
10) Find AC if $AB = 13$ and $BC = 9$.

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 .

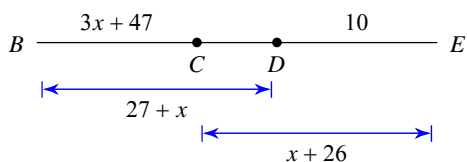
12) $AC = 22$, $BC = x + 14$, and $AB = x + 10$.
Find x .

Solve for x .

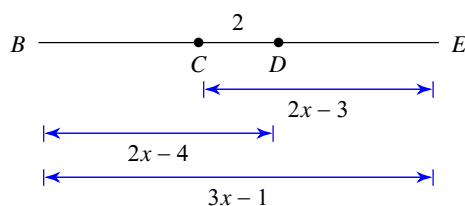


Find the length indicated.

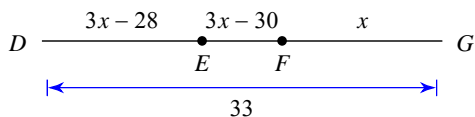
15) Find CE



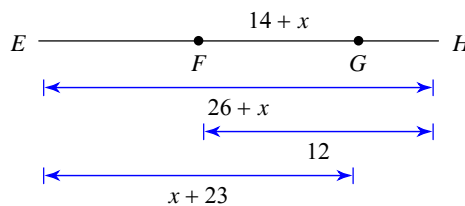
16) Find BD



17) Find DE



18) Find EG



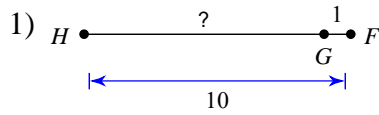
Critical thinking questions:

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

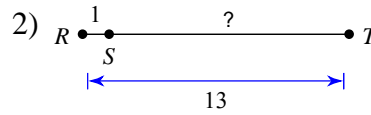
20) Write a segment addition problem using three points (like question 11) that asks the student to solve for x but has a solution $x = 20$.

The Segment Addition Postulate

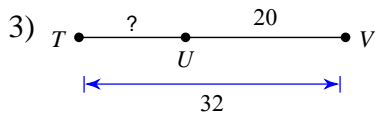
Find the length indicated.



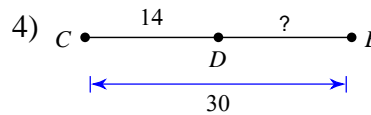
9



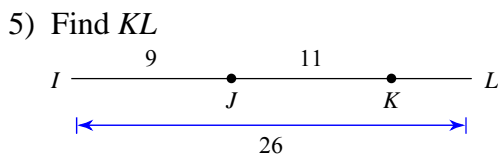
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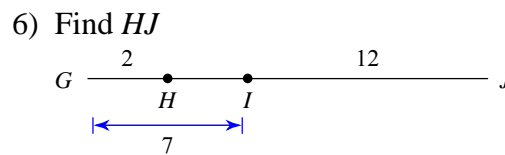
12



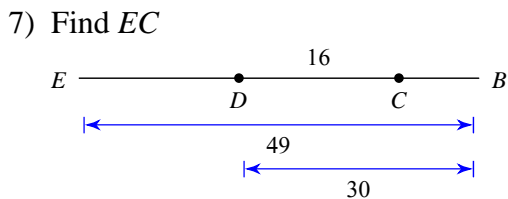
16



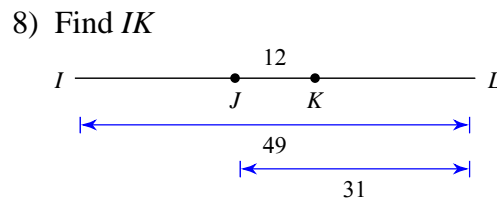
6



17



35



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 $BC = 12$.

28

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

22

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

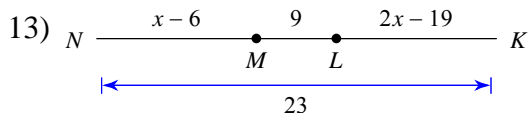
- 11) $AC = 3x + 3$, $AB = -1 + 2x$, and $BC = 11$.
Find x .

7

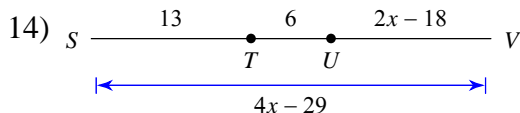
- 12) $AC = 22$, $BC = x + 14$, and $AB = x + 10$.
Find x .

-1

Solve for x .



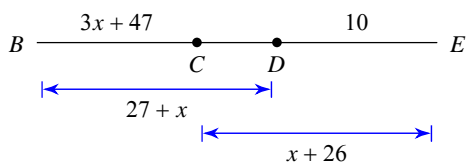
13



15

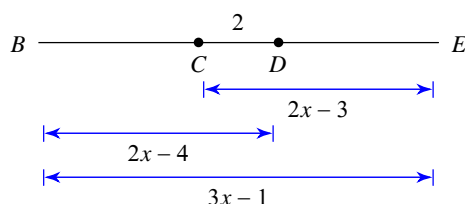
Find the length indicated.

- 15) Find CE



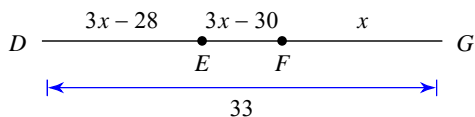
14

- 16) Find BD



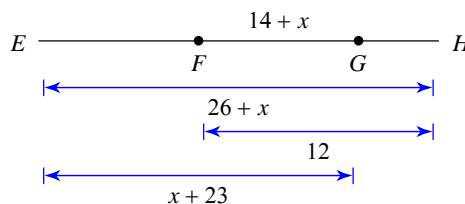
12

- 17) Find DE



11

- 18) Find EG



18

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