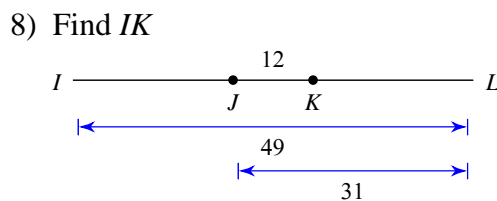
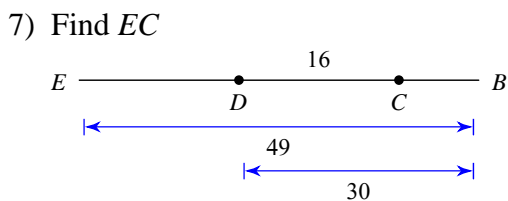
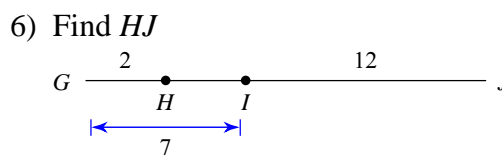
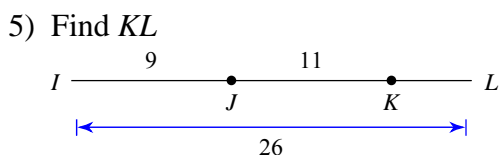
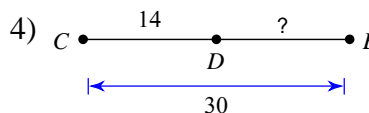
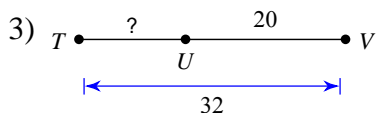
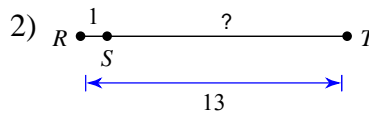
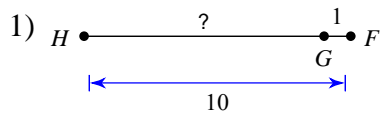


# The Segment Addition Postulate

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  $BC = 12$ .

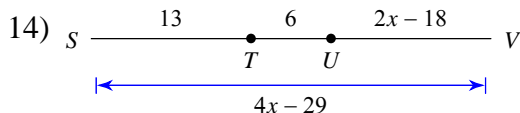
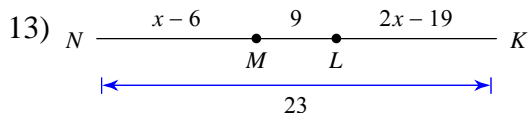
10) Find  $AC$  if  $AB = 13$  and  $BC = 9$ .

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  $x$ .

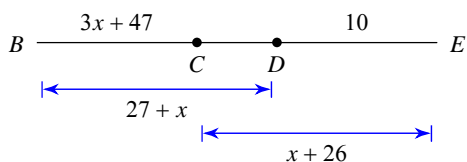
12)  $AC = 22$ ,  $BC = x + 14$ , and  $AB = x + 10$ .  
Find  $x$ .

Solve for  $x$ .

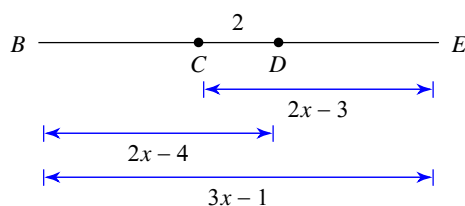


Find the length indicated.

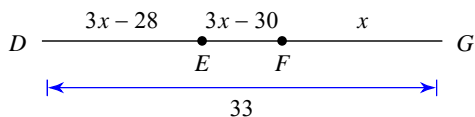
15) Find  $CE$



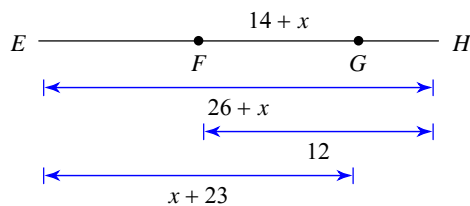
16) Find  $BD$



17) Find  $DE$



18) Find  $EG$



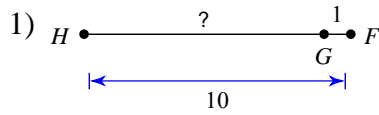
Critical thinking questions:

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

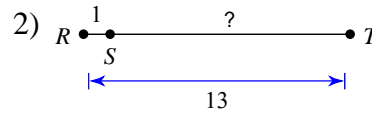
20) Write a segment addition problem using three points (like question 11) that asks the student to solve for  $x$  but has a solution  $x = 20$ .

# The Segment Addition Postulate

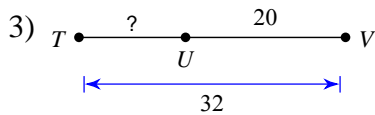
Find the length indicated.



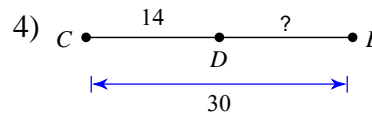
9



12

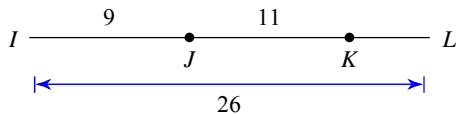


12



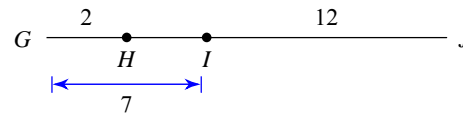
16

5) Find  $KL$



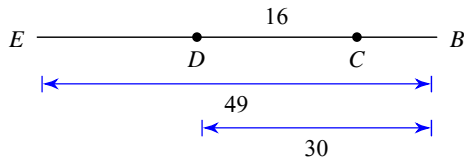
6

6) Find  $HJ$



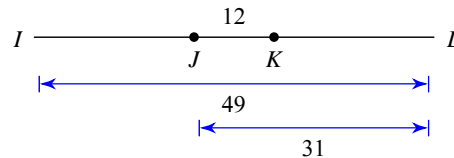
17

7) Find  $EC$



35

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  $BC = 12$ .

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  $x$ .

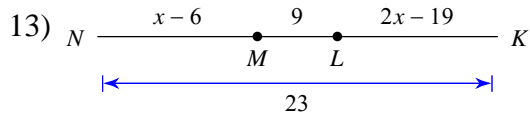
11)  $AC = 3x + 3$ ,  $AB = -1 + 2x$ , and  $BC = 11$ .  
Find  $x$ .

7

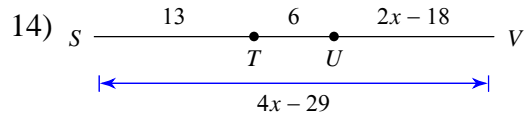
12)  $AC = 22$ ,  $BC = x + 14$ , and  $AB = x + 10$ .  
Find  $x$ .

-1

Solve for  $x$ .



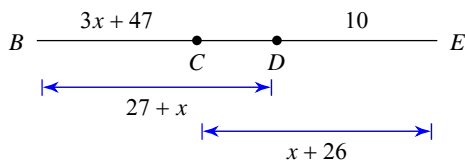
13



15

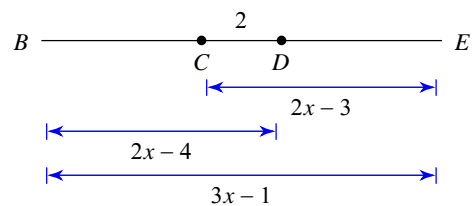
Find the length indicated.

15) Find  $CE$



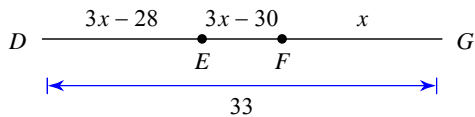
14

16) Find  $BD$



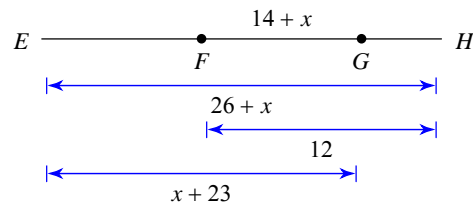
12

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