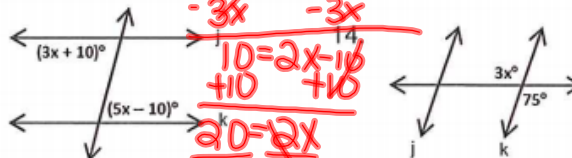


Welcome! please grab your ISN! Complete the following do now on page 21 of your ISN.

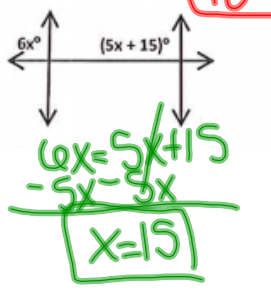
Find the value of x that makes j || k.

13.  
$$3x + 10 = 5x - 10$$

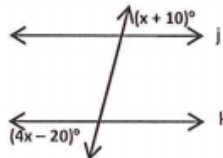
$$\begin{array}{r} -3x \\ \hline 10 = 2x - 10 \\ +10 \\ \hline 20 = 2x \\ \frac{20}{2} = \frac{2x}{2} \\ 10 = x \end{array}$$

$$\frac{3x}{3} = \frac{75}{3}$$

$$x = 25$$


15.  
$$6x = 5x + 15$$

$$\begin{array}{r} -5x \\ \hline x = 15 \end{array}$$

16.  
$$4x - 20 = x + 10$$

$$\begin{array}{r} -x \\ \hline 3x - 20 = 10 \\ +20 \\ \hline 3x = 30 \\ \frac{3x}{3} = \frac{30}{3} \\ x = 10 \end{array}$$

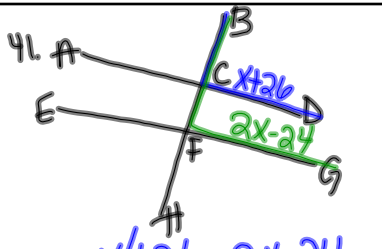
Aug 23-3:47 PM

39.  
$$m\angle A = x + 16$$

$$\frac{158 + 16}{174}$$

$$2x - 14 = x + 16$$

$$\begin{array}{r} -x \\ \hline x - 14 = 16 \\ +14 \\ \hline x = 30 \end{array}$$

41.  
$$x + 26 = 2x - 24$$

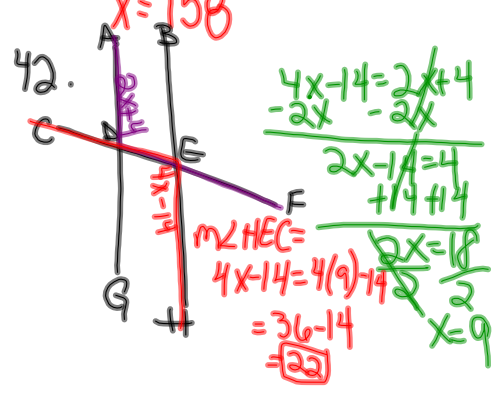
$$\begin{array}{r} -x \\ \hline 26 = x - 24 \\ +24 \\ \hline 50 = x \end{array}$$

$$m\angle BFG = 2x - 24$$

$$2(50) - 24$$

$$100 - 24$$

$$76$$

42.  
$$4x - 14 = 2x + 4$$

$$\begin{array}{r} -2x \\ \hline 2x - 14 = 4 \\ +14 \\ \hline 2x = 18 \\ \frac{2x}{2} = \frac{18}{2} \\ x = 9 \end{array}$$

$$m\angle HEC =$$

$$4x - 14 = 4(9) - 14$$

$$= 36 - 14$$

$$= 22$$

Aug 24-12:50 PM

Find the complement of the following angles: 1.  $34^\circ$  2.  $72^\circ$

$$1. 90 - 34 = \boxed{56^\circ}$$

$$2. 90 - 72 = \boxed{18^\circ}$$

Aug 23-3:29 PM

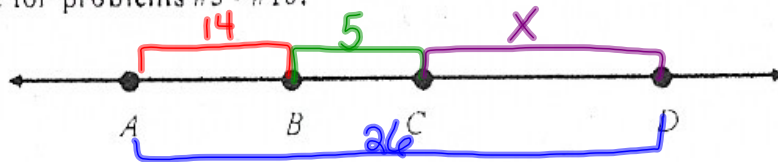
Find the supplement of the following angles: 3.  $153^\circ$  4.  $48^\circ$

$$3. 180 - 153 = \boxed{27^\circ}$$

$$4. 180 - 48 = \boxed{132^\circ}$$

Aug 23-3:41 PM

Use the given line for problems #5 - #10:

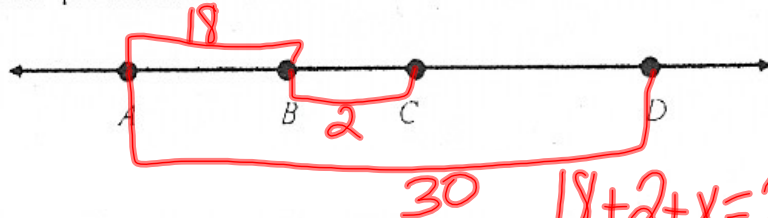


5. If  $AB = 14$ ,  $BC = 5$ , and  $AD = 26$ , find the length of  $CD$ .

$$\begin{aligned} 14 + 5 + X &= 26 \\ 19 + X &= 26 \\ -19 &\quad -19 \\ \hline X &= 7 \end{aligned}$$

Aug 23-3:41 PM

Use the given line for problems #5 - #10:

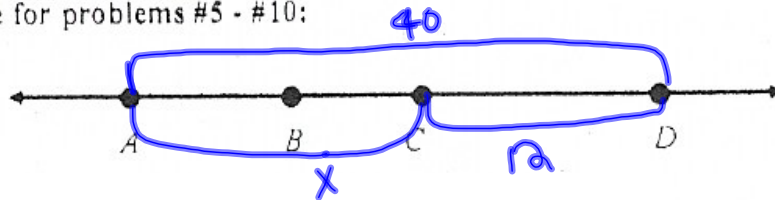


6. If  $AB = 18$ ,  $BC = 2$ , and  $AD = 30$ , find the length of  $CD$ .

$$\begin{aligned} 18 + 2 + X &= 30 \\ 20 + X &= 30 \\ -20 &\quad -20 \\ \hline X &= 10 \end{aligned}$$

Aug 24-2:21 PM

Use the given line for problems #5 - #10:

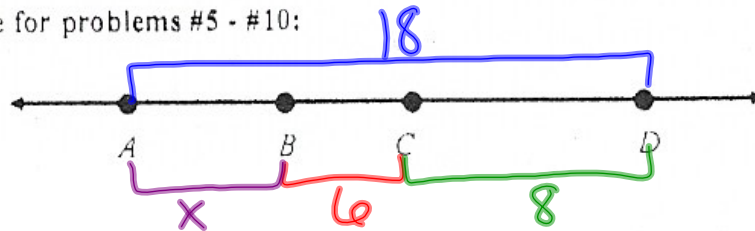


7. If  $AD = 40$ ,  $CD = 12$ , find the length of  $AC$ .

$$\begin{array}{r} x + 12 = 40 \\ -12 \quad -12 \\ \hline x = 28 \end{array}$$

Aug 24-2:22 PM

Use the given line for problems #5 - #10:

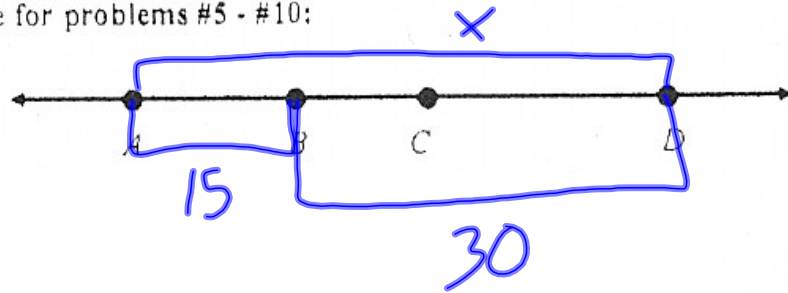


8. If  $BC = 6$ ,  $CD = 8$ , and  $AD = 18$ , find the length of  $AB$ .

$$\begin{array}{r} x + 6 + 8 = 18 \\ x + 14 = 18 \\ -14 \quad -14 \\ \hline x = 4 \end{array}$$

Aug 24-2:22 PM

Use the given line for problems #5 - #10:



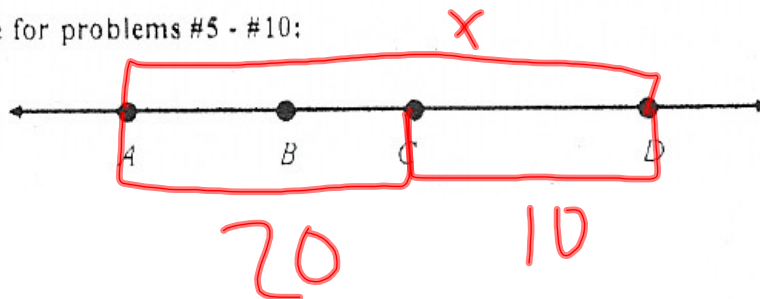
$$30 + 15 = x$$

$$x = 45$$

9. If  $AB = 15$ , and  $BD$  is twice the length of  $AB$ , find the length of  $AD$ .

Aug 24-2:23 PM

Use the given line for problems #5 - #10:



$$20 + 10 = x$$

$$x = 30$$

10. If  $AC = 20$  and  $CD$  is half the length of  $AC$ , find the length of  $AD$ .

Aug 24-2:23 PM

Given the angle for problems #11 and #12:

11. Given  $\angle LOM = 54^\circ$  and  $\angle LON = 108^\circ$ ,  
find the measure of  $\angle MON$ .

$$\begin{array}{r} 54 + x = 108 \\ - 54 \quad - 54 \\ \hline \end{array}$$

12. Given  $\angle LOM = 68^\circ$  and  $\angle MON = 42^\circ$ ,  
find the measure of  $\angle LON$ .

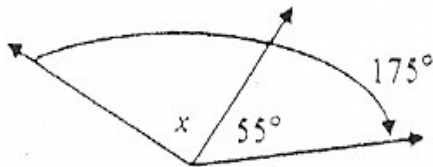
$$\boxed{x = 54}$$



Aug 23-3:49 PM

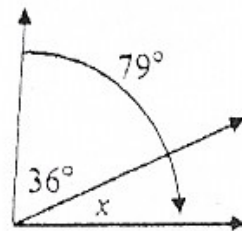
Find the measure of  $x$  for problems #13 and #14:

13.



$$\begin{array}{r} 175 \\ - 55 \\ \hline 120 \end{array} \quad x = 120^\circ$$

14.

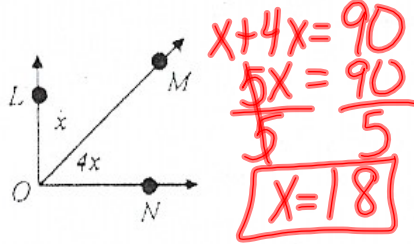


$$\begin{array}{r} 79 \\ - 36 \\ \hline \boxed{43} \end{array}$$

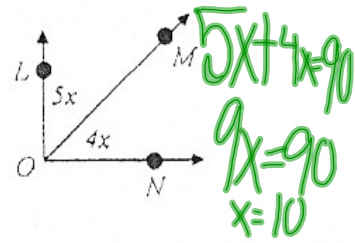
Aug 23-3:49 PM

Given that  $\angle LON$  is a right angle, find the measure of  $\angle x$  for problems #15 - #18.

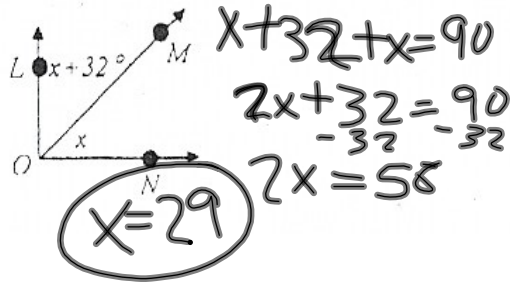
15.



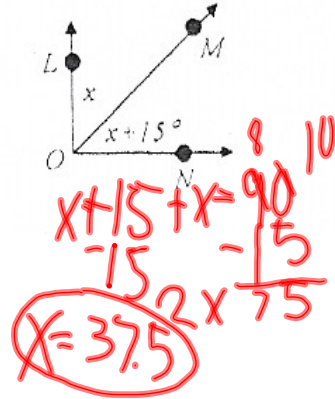
16.



17.



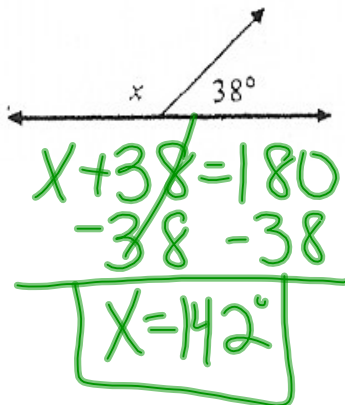
18.



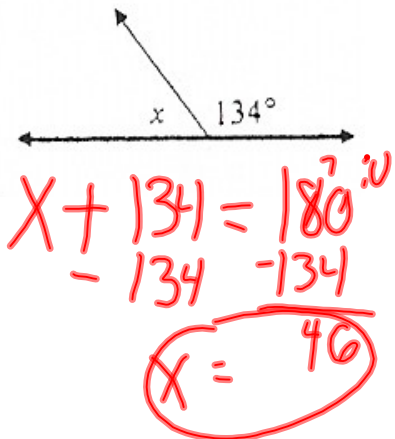
Aug 23-3:51 PM

Find the measure of  $\angle x$  for problems #19 - #32.

19.

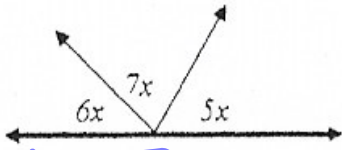


20.



Aug 23-3:55 PM

23.



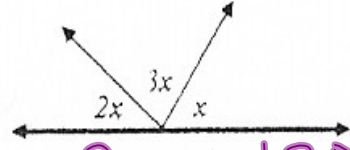
$$\underline{6x} + \underline{7x} + \underline{5x} = 180$$

$$\cancel{18x} = 180$$

$$\frac{\quad}{18} \quad \frac{\quad}{18}$$

$$\boxed{x=10}$$

24.



$$\underline{2x} + \underline{3x} + \underline{x} = 180$$

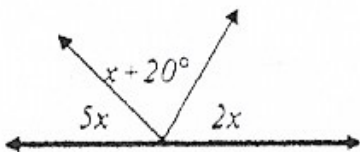
$$\cancel{6x} = 180$$

$$\frac{\quad}{6} \quad \frac{\quad}{6}$$

$$\boxed{x=30}$$

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25.



$$5x + x + 20 + 2x = 180$$

$$8x + 20 = 180$$

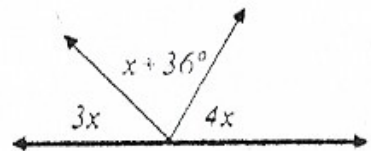
$$\frac{\quad}{-20} \quad \frac{\quad}{-20}$$

$$\cancel{8x} = 160$$

$$\frac{\quad}{8} \quad \frac{\quad}{8}$$

$$\boxed{x=20}$$

26.



$$\underline{3x} + \underline{x} + \underline{36} + \underline{4x} = 180$$

$$8x + 36 = 180$$

$$\frac{\quad}{-36} \quad \frac{\quad}{-36}$$

$$\cancel{8x} = 144$$

$$\frac{\quad}{8} \quad \frac{\quad}{8}$$

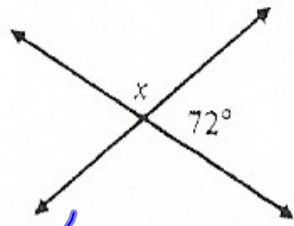
$$\boxed{x=18}$$

Aug 23-3:56 PM



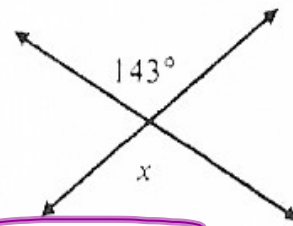
Find the measure of  $\angle x$ .

29.



$$\begin{array}{r} x + 72 = 180 \\ -72 \quad -72 \\ \hline x = 108 \end{array}$$

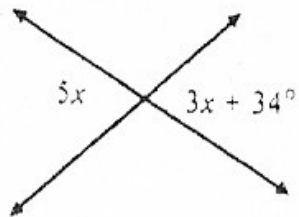
30.



$$x = 143^\circ$$

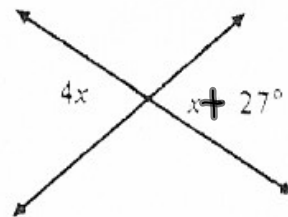
Aug 23-3:57 PM

31.



$$\begin{array}{r} 5x = 3x + 34 \\ -3x \quad -3x \\ \hline 2x = 34 \\ \frac{2x}{2} = \frac{34}{2} \\ x = 17 \end{array}$$

32.

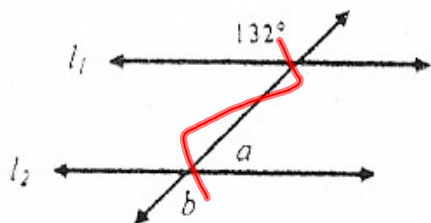


$$\begin{array}{r} 4x = x + 27 \\ -x \quad -x \\ \hline 3x = 27 \\ \frac{3x}{3} = \frac{27}{3} \\ x = 9 \end{array}$$

Aug 23-3:58 PM

Given that  $l_1 \parallel l_2$ , find the measures of angles  $a$  and  $b$ .

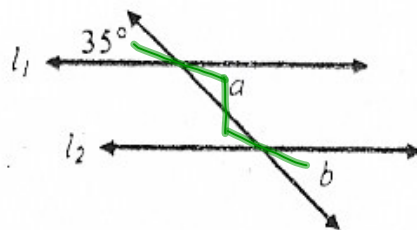
33.



$$b = 132$$

$$a = 180 - 132 = 48$$

34.

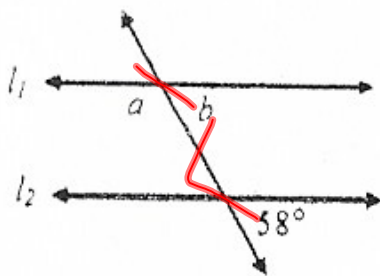


$$a = 35$$

$$b = 35$$

Aug 23-3:50 PM

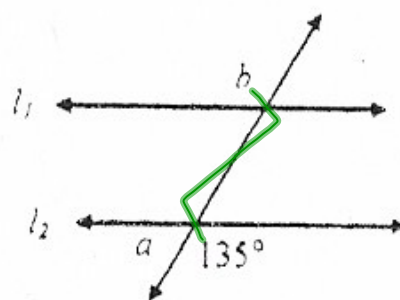
35.



$$b = 58^\circ$$

$$a = 180 - 58 = 122$$

36.



$$b = 135$$

$$a = 180 - 135 = 45$$

Aug 23-3:59 PM