

Solve each equation.

1) $\frac{x+6}{2} = -3$

2) $3 = -5 + \frac{n}{2}$

3) $3(5m - 7) = -81$

4) $-3 + 5|r + 2| = 22$

Rewrite the given point-slope equation in slope-intercept form.

5) $y - 11 = \frac{7}{4}(x - 8)$

Solve each inequality.

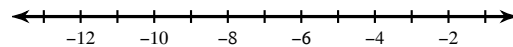
6) $\frac{x-8}{13} < -2$

7) Evaluate the function:
 $f(x) = 23x + 16$ for $x = -8$

8) Find the value of x so that the function has the given value:
 $f(x) = 23x + 16$; $f(x) = 269$

Solve each inequality and graph its solution.

9) $4|5 + a| + 3 < 15$

**Write the point-slope form of the equation of the line through the given point with the given slope.**

10) through: $(3, -2)$, slope = $-\frac{1}{3}$

Write the point-slope form of the equation of the line through the given points.

11) through: $(-4, 4)$ and $(1, 5)$

Solve each system by elimination.

12) $8x - 6y = -10$
 $-4x + 2y = -2$

Find the distance between each pair of points.

13) $(-5, -2), (7, -6)$

14) $(3, 6), (4, 0)$

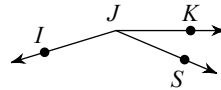
Find the midpoint of the line segment with the given endpoints.

15) $(29, -22), (29, -5)$

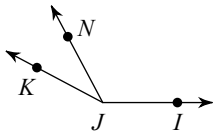
Given the midpoint and one endpoint of a line segment, find the other endpoint.

16) Endpoint: $(-6, 10)$, midpoint: $(1, -6)$

17) Find $m\angle KJS$ if $m\angle KJI = 163^\circ$,
 $m\angle KJS = x + 25$, and $m\angle SJI = x + 142$.

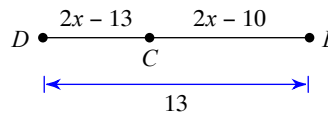


18) Find $m\angle NJI$ if $m\angle NJI = x + 121$,
 $m\angle KJN = x + 37$, and $m\angle KJI = 152^\circ$.



Find the length indicated.

19) Find DC



Solve for x .

20)

