Name_____

Period and Class_____

Solve each equation.

1) $-5 = -7 + \dfrac{x}{8}$

2) $3 = \dfrac{4 + v}{3}$

3) $7 - 3(4n - 7) = 124$

4) $2|v - 3| - 4 = 20$

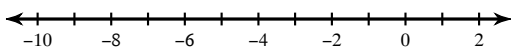## Rewrite the given point-slope equation in slope-intercept form.

5) $y - 17 = \dfrac{4}{7}(x - 21)$

Solve each inequality.

6) $-2x - 9 < 29$

Solve each inequality and graph its solution.

7) $|r + 4| - 5 < 0$

8) Evaluate the function:
$f(x) = 11x + 42$ for $x = 8$

9) Find the value of x so that the function has the given value:
$f(x) = 11x + 42$; $f(x) = 97$

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

10) through: $(-5, 4)$, slope $= -\dfrac{6}{5}$

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

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

Solve each system by elimination.

12) $7x - 4y = 8$
$-8x + 3y = -6$

Find the distance between each pair of points.

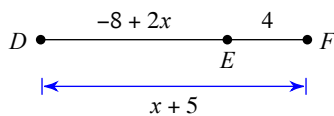13) $(5, -8)$, $(7, -1)$

14) $(0, 3)$, $(1, -4)$

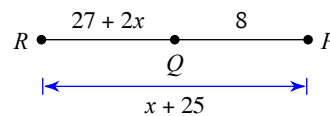**Find the midpoint of the line segment with the given endpoints.**

15) $(3, 6)$, $(7, 4)$

16) $(10, -2)$, $(6, -3)$
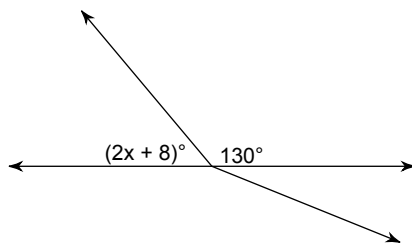
Find the length indicated.

17) Find DF

D •———$-8 + 2x$———• E——4——• F
$x + 5$

18) Find RP

R •———$27 + 2x$———• Q——8——• P
$x + 25$

Find the value of x.

19)

$(2x + 8)°$ $130°$

20)

$(3x + 2)°$

$28°$