Ch 7 Rev/Cum Rev

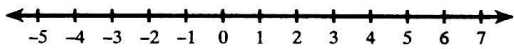**Solve each equation.**

1) $\dfrac{6 + p}{4} = 5$

2) $-25 - 5b = -5(8b + 5)$
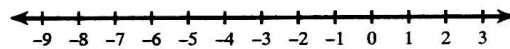
3) $|r + 1| = 8$

4) $4|m| - 10 = 30$

Solve each compound inequality and graph its solution.

5) $5 + 3v \geq 11$ or $9 - 5v \geq 14$

6) $7 + 3x \geq -11$ and $10x + 4 < 4$

Evaluate each function for the given value.

7) $f(x) = -2x - 3$; Find $f(-4)$

Each set of ordered pairs represents a relation. Determine the domain/range and if the relation is a function. Explain why or why not.

8) $\{(-7, 3), (-7, -7), (-4, 0), (3, -3), (4, 1)\}$

Find the slope of the line through each pair of points.

9) $(19, 17), (-8, 10)$

Write the slope-intercept form of the equation of the line through the given points. y=mx+b

10) through: $(-5, -3)$ and $(2, 4)$

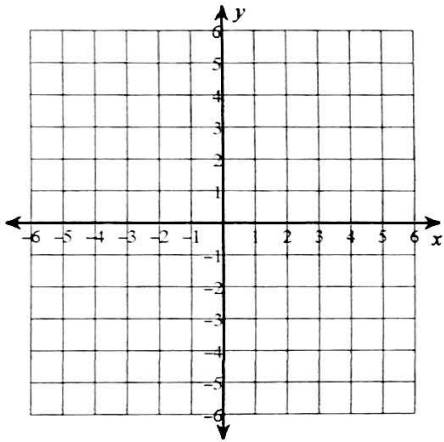**Write the slope-intercept form of the equation of each line.**

11) $x - 2y = -8$

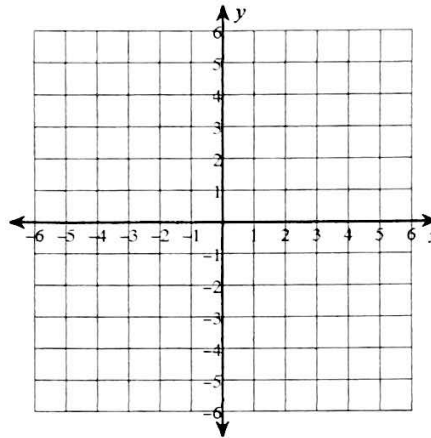**Write the slope-intercept form of the equation of the line described.**

12) through: $(-4, 2)$, parallel to $y = \dfrac{3}{4}x - 4$

Sketch the graph of each line.

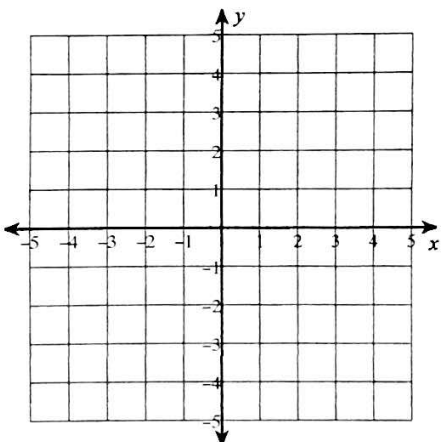13) $y = -\dfrac{2}{5}x - 4$

14) $3x - y = 2$

Sketch the solution to each system of inequalities.
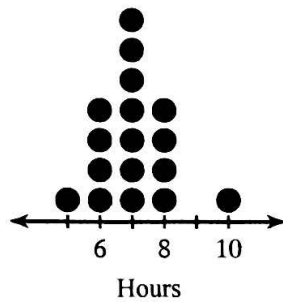
15) $y \le x - 1$
    $y > 2$

Solve each system by substitution.

16) $y = 2x - 9$
    $-5x - 2y = 9$

Find the mode, median, and mean for each data set. Describe the shape.   What measure of center would you use and why?

17)   Hours Slept

Hours

Find the median, lower quartile, upper quartile, and interquartile range for each data set.

18)   Annual Precipitation (Centimeters)

40	146	47	97	157	123
121	111	97			

Draw a box-and-whisker plot for each data set. Describe the shape of the graph. What measure of center would you use and explain why.

19)   Average Lifespan

Animal	Years	Animal	Years	Animal	Years	Animal	Years
Teal	20	Fox	14	Beaver	20	Ant (Worker)	1.5
House Mouse	4	Bear	40	Ferret	12	Mosquitofish	2
Lobster	15	Sulphur Crested Cockatoo	40	Leopard Frog	6		

Draw a histogram for each data set. Describe the shape of the graph.

20)   # Words in Book Titles

3	2	2	2	3	5	1	2
3							