CHAPTER 4 REVIEW

Write an equation of the line in slope-intercept form.

1. 2.

3.Write an equation in point-slope form that passes through the point (-3, 5) and has a slope of -2.

Write an equation in slope-intercept form that passes through the following points.

4. (-2, 4), (3, 9) 5. (2, 5), (4, 8)

6. Write an equation of the line that passes through the point (-3, 10) and is perpendicular to the line y = -2x + 7

7. Write an equation of the line that passes through the point (-4, 5) and is parallel to the line y = -3x + 5.

Determine which of the lines, if any, are parallel or perpendicular. Explain.

8. Line *a* passes through (-2, 3) and (1, -1)

 Line *b* passes through (-3, 1) and (1, 4)

 Line *c* passes through (0, 2) and (3, -2)

9. Line *a*: y = -4x + 7

 Line *b*: x = 4y + 2

 Line *c*: -4y + x = 3

10. The scatter plot shows the weights (in pounds) of a baby over time.

1. What is the weight of the baby when the baby is four months old.
2. What is the age of the baby when the baby weighs 17.2 pounds.
3. What tends to happen to weight of the baby as the age increases?

11. Tell whether x and y show a positive, a negative, or no

 correlation.

a. b. c.

Determine if the sequence is arithmetic. If so , find the common difference and write the next four terms of the sequence.

12. 20, 13, 6, -1, . . . 13. 2, 4, 8, 16, . . .

14. -1, -5, -9, -13, . . . 15. 7, 4, 1, -1, . . .

Write and equation for the nth term of the arithmetic sequence. Then find $a\_{25}$.

16. 2, -3, -8,-13, . . . 17. 4 $\frac{1}{2}, 6, 7\frac{1}{2}, 9,$ . . .

18. Evaluate the function $f\left(x\right)= \left\{\begin{array}{c}2x+3, if x<0\\x-5, if x \geq 0 \end{array}\right.$

a. f(-2) b. f(4) c. f(1)

19. Graph the function $f\left(x\right)= \left\{\begin{array}{c}x+6, if x<-2\\-2x, if x \geq -2\end{array}\right.$ State the domain and range.

20. Write a piecewise function for the graph.

 