Name Date

Sec1 **End of Year Review** **#1**

Simplify.

1. $8-2\cdot5-3+5\cdot4$

2. $2-3\cdot6$

3. $44\div11+5\cdot7-5^2$

4. $4\cdot9-8+3$

5. $5^3-(-8)-12(-2)$

6. $15-6\div2$

7. $\dfrac{-23-(-15)}{(-18+7)-(-5)}$

8. $\dfrac{(-2)^2-3^2}{8-3(2)}$

Simplify

9. $2(4x-9)$

10. $-6(2x-11)$

11. $9-4(2x-7)$

12. $6(7x-3)-2(x-1)$

Solve using inverse operations.

13. $-3(2x-9)=2-5(3x+7)$

14. $12x-16x=27$

Solve.

15. $2(15x-10)-4(16x+10)=8$

16. $5(2x + 3) + 6x = -17$

17. $20-5x \geq 17-2x$

18. $4(z-3)+3(2z+5)<-7$

19. $\boldsymbol{-3t+7>25}$

20. $\frac{3}{5}m+2>\frac{1}{3}m$

Solve for y. Then Graph.

21. $2x + 3y = 9$

22. $4x + 2y - 8 = 12$

23. $5x - y = 10$

24. $8x + 2y = 16$

Solve for y. Then Graph

25. $3x - 2y = 8$

26. $-x - 2y = -8$

27. $y = -3$

28. $x = 4$

REVIEW:
Arithmetic-

Geometric -

Are the following **arithmetic, geometric,** or **neither**? Why?

29. 1.4, 4.2, 12.6, 37.8

30. 57, 54, 51, 48

31. 76, 38, 9.5, 1.58

32. 2.3, 6.8, 11.3, 15.8

33. 26, 33, 41, 50

34. 98, 49, 24.5, 12.25

Write the **explicit equations** for each sequence:

35. 2, 8, 32, …

36. -125, -25, -5, ...

37. 7, 19, 31, …

Write the **explicit equations** for each sequence given a table of values:

38.

x	$f(x)$
4	24
5	12
6	6
7	3
8	1.5

39.

x	1	2	3	4
$f(x)$	8	20	50	125

40.

x	$f(x)$
0	7
1	21
2	63
3	189
4	567

41.

x	$f(x)$
1	-17
2	-9
3	-1
4	7
5	15

42.

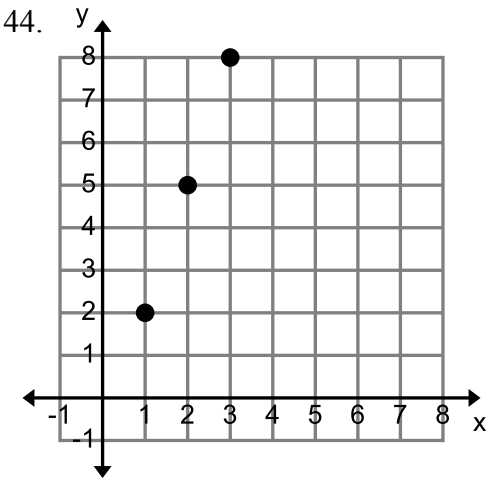
x	-5	-4	-3	-2
$f(x)$	14	8	2	-4

43.

X	$f(x)$
-3	39
-2	45
-1	51
0	57
1	63

Use the graph to find the **explicit equation**:

44.



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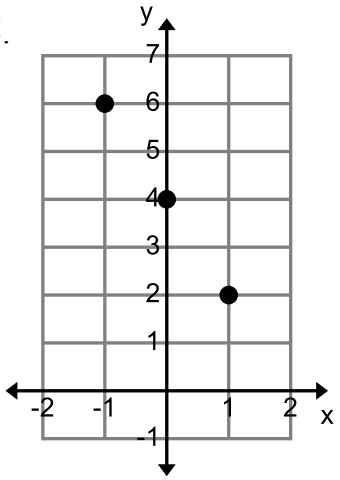

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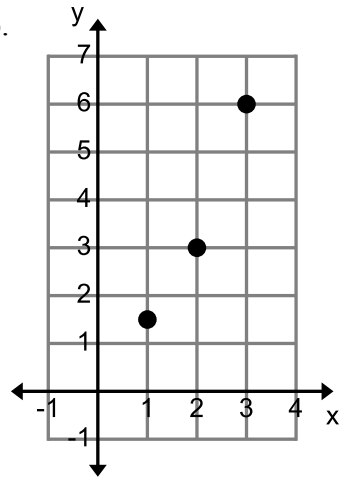

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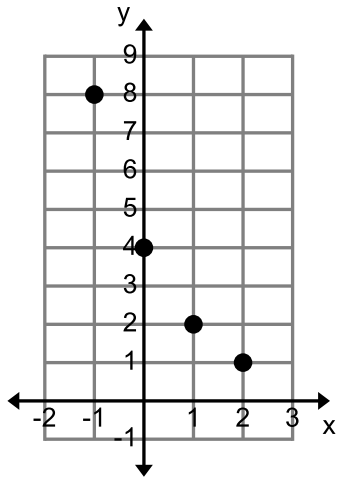
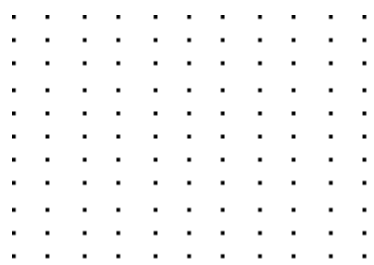


49. Sara wants to share her Halloween candy with every one in the school. On the first day, she gave 6 people candy. After that she decided to only give candy to 3 new people a day.

a) Create a table of at least 5 values

b) Create a graph of the information
(Be sure to label everything!)



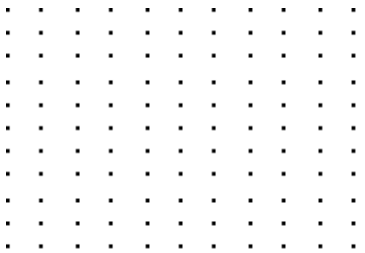
c) Recursive Equation:

d) Explicit Equation:

50. The business club is projecting their frazzle sales for the year. They started by selling $60 of frazzles on week 9. They predict to triple their sales each week.

a) Create a table of at least 5 values

b) Create a graph of the information
(Be sure to label everything!)



c) Recursive Equation:

d) Explicit Equation:

51. Use the table of a linear function to find the rate of change and y-intercept

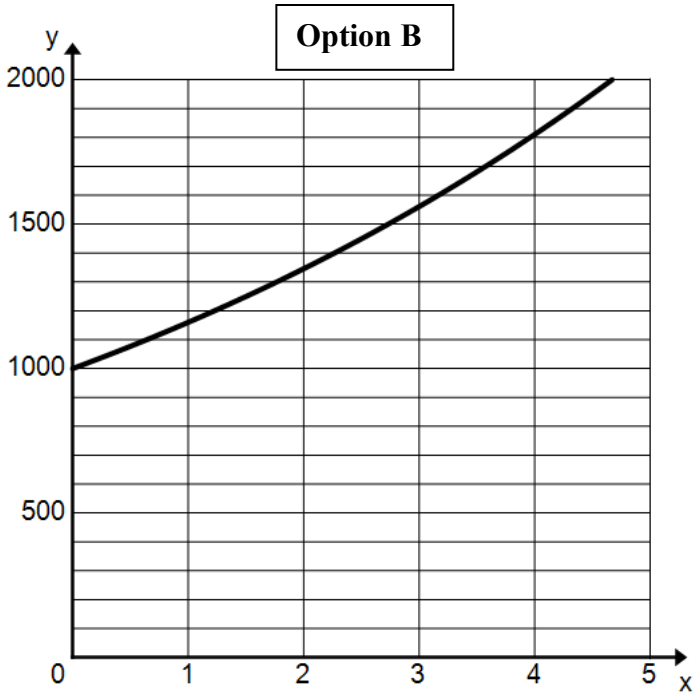
Minutes	Bounces
0	4
1	27
2	50
3	73

The following graph and table represent two different investments. Use them to answer questions 52-53.

Option A

Years	Investment Worth
0	$600
1	$950
2	$1300
3	$1650
5	$2350

Option B



52. Which investment would be worth more at year 2?

53. Which investment follows a linear growth pattern? Which one follows an exponential growth pattern?

54. Given $f(x) = -4x + 2$, what is the y-intercept and rate of change?