Algebra 1

Name _____

Snow Packet: Day 1

Date _____ Period ____

Solve each equation.

1) $5n - 5 = 70$

2) $-6k - 8 = 100$

3) $4 = 6 + \frac{x}{6}$

4) $8(2x + 7) + 3 = 123$

5) $8 + 3(-7b - 5) = 98$

6) $-5(1 + b) - 2(1 + 6b) = 44$

7) $-5(b - 6) + 3(1 - 4b) = -69$

8) $5m + 3 = 7 + m$

9) $-11 + 5x - 5 - 5 = 6x - 7 + x$

10) $5x + 35 = 2(x + 7)$

11) $4(1 + 4p) = 13 + 7p$

12) $-22 - 7a = -6a + 2(-2 - 5a)$

Algebra 1

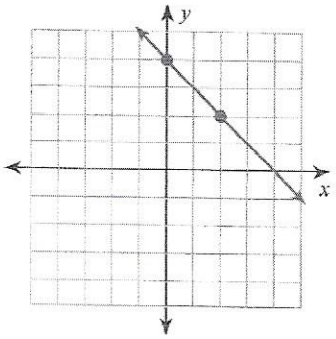
Name_____

Snow Packet: Day 2

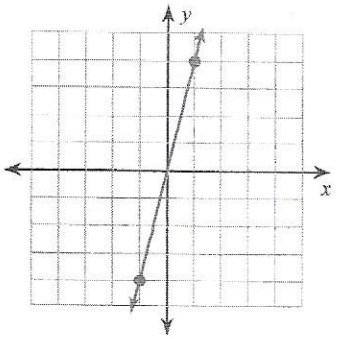
Date_____ Period____

Find the slope of each line.

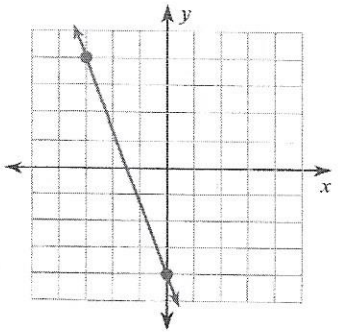
1)



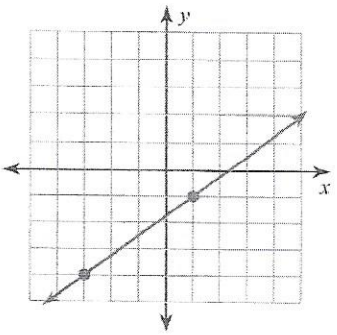
2)



3)



4)



5) $y = \frac{1}{5}x - 1$

6) $x = 4$

7) $y = -4x + 1$

8) $y = \frac{3}{5}x$

9) $x + 2y = -10$

10) $2x - y = 3$

11) $2x + 5y = -5$

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

12) $(13, -5), (10, -2)$

13) $(0, 20), (20, -5)$

14) $(-2, 8), (-2, 7)$

15) $(-8, 1), (-20, 15)$

Algebra 1

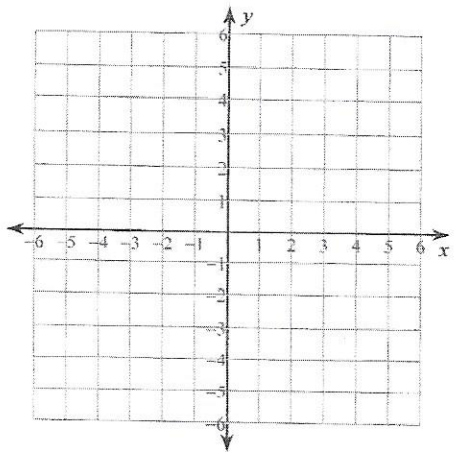
Name_____

Snow Packet: Day 3

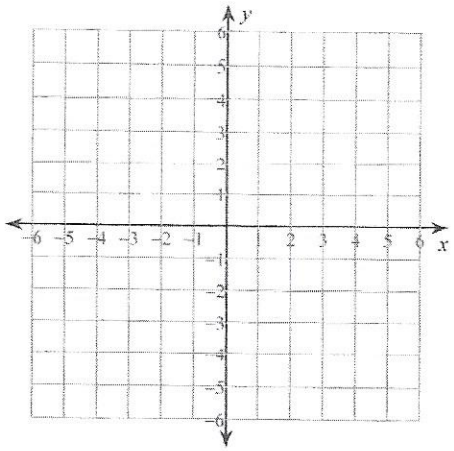
Date_____ Period____

Sketch the graph of each line.

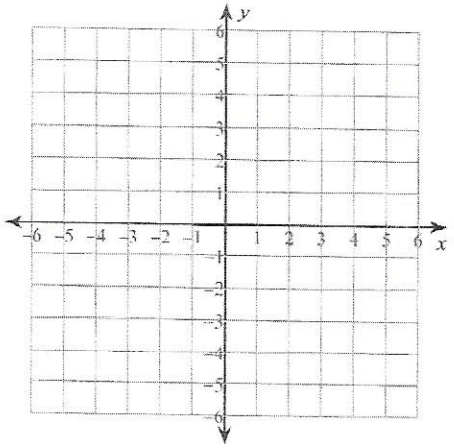
1) $y = 3x - 5$



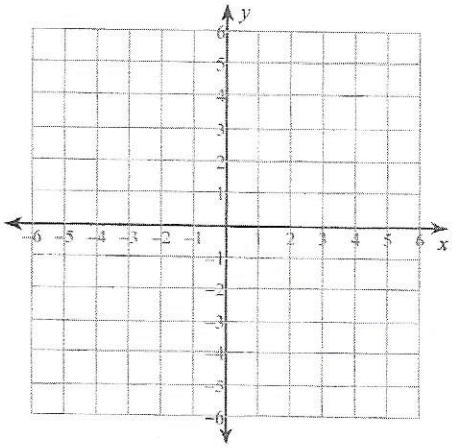
2) $y = \frac{4}{3}x + 1$



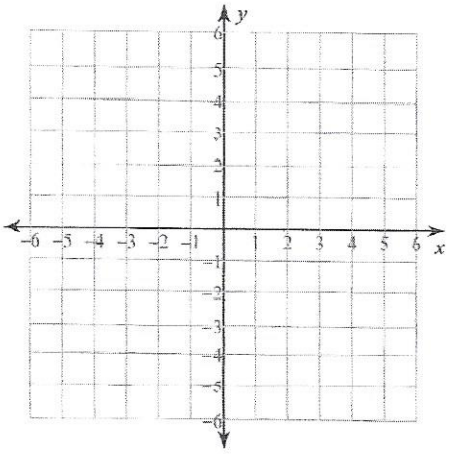
3) $5x + 4y = 0$



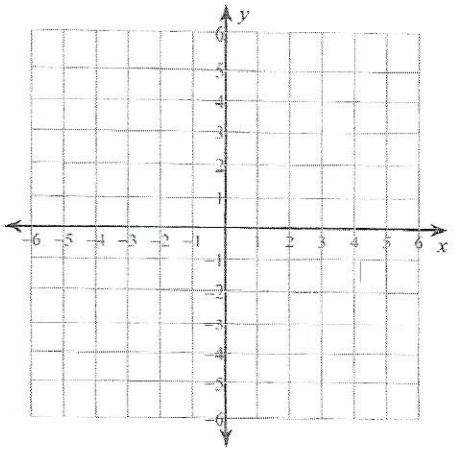
4) $2x - 5y = 15$



5) $x + y = -4$



6) $3x - y = 3$



Algebra 1

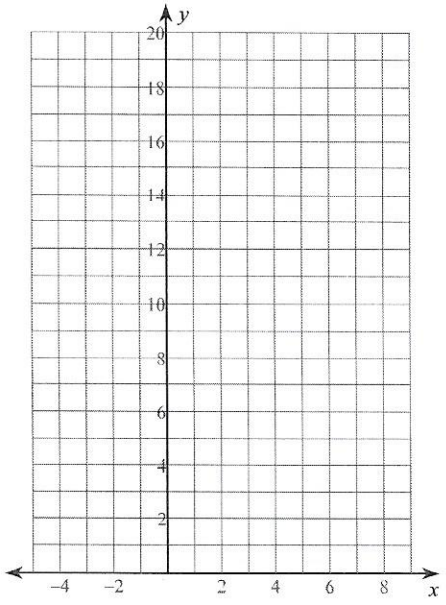
Name_____

Snow Packet: Day 4

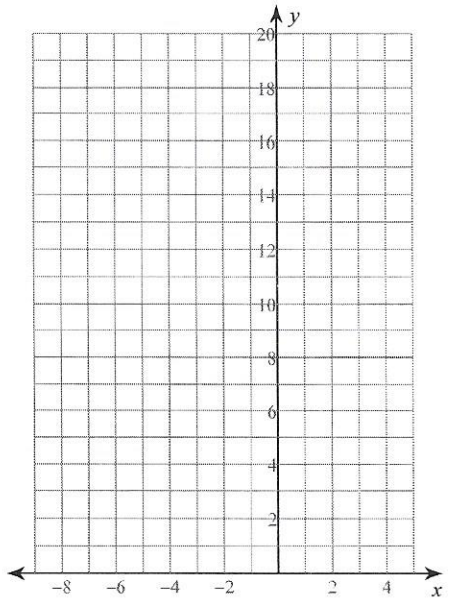
Date_____ Period____

Sketch the graph of each function.

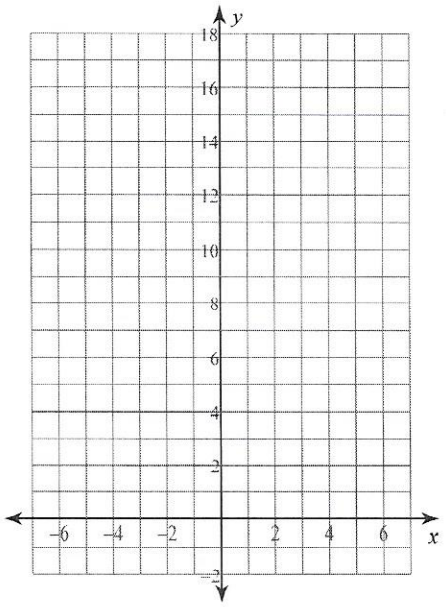
1) $y = 2^{x-2}$



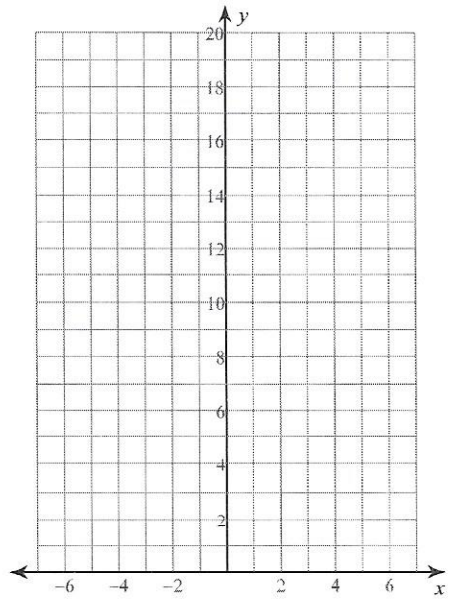
2) $y = \left(\frac{1}{2}\right)^{x+2}$



3) $y = 2^{x} - 2$



4) $y = \left(\frac{1}{4}\right)^{x} + 1$



Solve each equation.

5) $2^{-x-2} = 2^{-2x}$

6) $\left(\frac{1}{64}\right)^{x} = 4^{x}$

7) $16^{3n+1} = 8^{n-2}$

8) $9^{2m} = 1$

Solve each equation. Round your answers to the nearest ten-thousandth.

9) $5 \cdot 10^{-4n} = 74$

10) $9^{-4x} + 6 = 16.3$

11) $5^{n+8} - 9 = 25$

12) $-10 \cdot 3^{6r} = -24$

Algebra 1

Name_____

Snow Packet: Day 5

Date_____ Period____

Simplify each expression.

1) $(5p^4 - 4p^2 - 2p^3) + (6p^3 + 3p^2 + 2p^4)$

2) $(8x^3 + 8x^4 - 7) - (3 - 6x^4 + 2x^3)$

3) $(6x^2 - 8x^3 - 6x^4) - (4x^2 + 3x^3 + 8x^4)$

4) $(5x^4 + 1 + 7x^3) + (2x^3 - 2x^4 + 5)$

Find each product.

5) $4(2n - 5)$

6) $3(4a - 8)$

7) $5n^2(4n + 5)$

8) $8p(3p^2 + 7p + 6)$

9) $2x^2(2x^2 - 3x + 7)$

10) $(n + 7)(2n - 2)$

11) $(4r - 6)(8r - 8)$

12) $(5x - 8)(x^2 - 6x + 8)$

13) $(2p + 2)(3p^2 + 4p - 3)$

Factor the common factor out of each expression.

14) $6k^3 - 10k^2 + k$

15) $28x^6 - 7x^3 - 56$

Factor each completely.

16) $p^2 + p - 20$

17) $a^2 + 20a + 100$

18) $v^2 - 9$

19) $p^2 + 3p - 54$

20) $5x^2 + 14x - 24$