SRHS - Math 1 - #6.2b Name_____

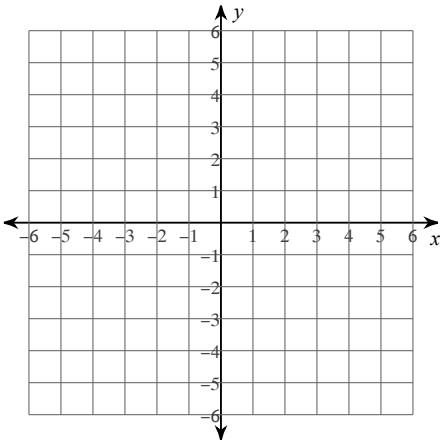
Solve each equation.

1) $5 - 3m + 2 = -2$

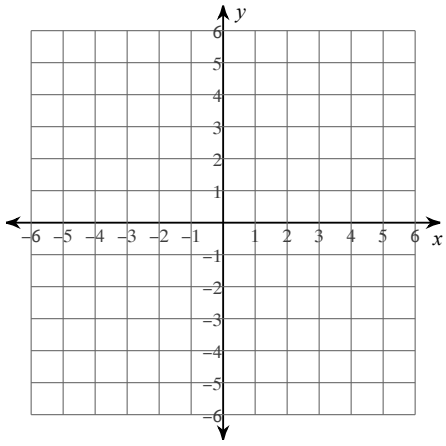
2) $10 + \frac{n}{2} = 16$

Sketch the graph of each line.

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

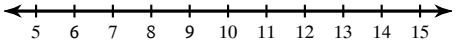


4) $y = -\frac{5}{4}x + 2$

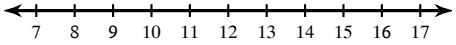


Solve each inequality and graph its solution.

5) $4x + 5 \leq 37$



6) $-2(x - 1) > -16$



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

7) through: $(5, -5)$ and $(3, 2)$

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

8) through: $(0, -2)$ and $(-5, -5)$

Solve the system of linear equations.

9) $x + 3y = -10$
$3x - 3y = 18$

Solve the system of linear equations.

10) $-2x + 8y = -18$
$y = -5x - 18$

Determine whether the following represents a relationship that is linear, exponential growth, exponential decay, or none of these.

11. $y = 3x$

12. $y = 2(.13)^x$

13.

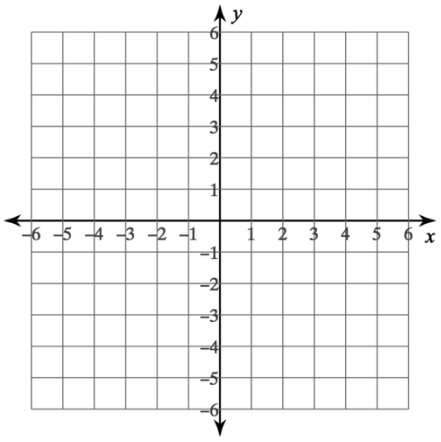
x	*y*
1	3
2	9
3	27
4	81

Evaluate the function for the given value of x

14. $y = 2(4)^x; x = -2$

Graph the function:

15. $f(x) = -2(0.5)^x$



Identify the initial amount a and the rate of growth r of the exponential function. Evaluate the function when $t = 5$

16. $y = 50(1 + 0.25)^t$

Write a function that represents the situation.

17. Profits of $100,000 increase by 15% each year.

18. College enrollment of 41,000 increases by 7% every year.

Identify the initial amount a and the rate of growth r of the exponential function. Evaluate the function when $t = 5$

19. $y = 360(1 - 0.9)^t$

Write a function that represents the situation.

20. A school population of 1200 decreases by 6% each year.