

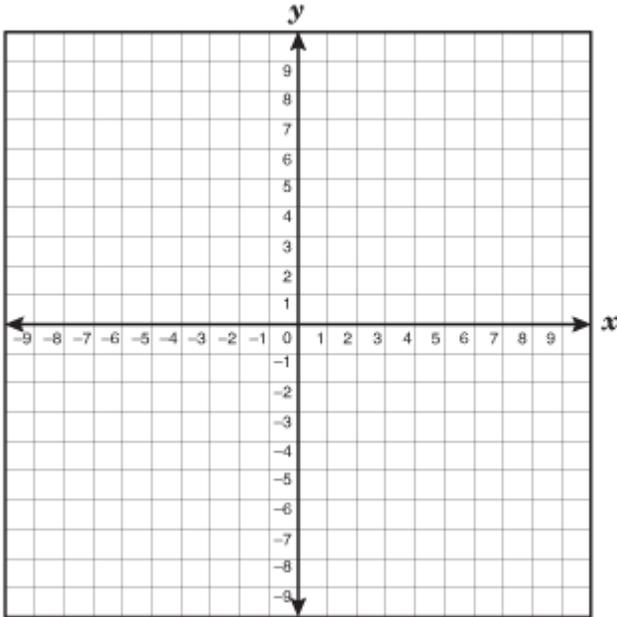
Summer Assignment AP Stats

Name _____

Review Problems from Algebra 2 and Advanced Math

Due: First Day of School

1. Graph $y=6-\frac{2}{3}x$ neatly by hand. Be sure to label the intercepts.



2. Write the equation of a line containing the point (2,5) with slope 1/3. Give your answer in slope-intercept form. **Show all algebra steps.**

3. Write the equation of a line through the two points (2, 5) and (0, -1). Give your answer in slope-intercept form. **Show all algebra steps.**

5. Here is a formula that is used often in AP Statistics: $z = \frac{x - \mu}{\sigma}$

a. If $z = 2.5$, $x = 102$, and $\mu = 100$, what is σ ? Show your work.

b. If $z = -3.35$, $x = 60$ and $\sigma = 4$, what is μ ? Show your work.

6. Solve the following system of linear equations.

$$-\frac{5}{7} - \frac{11}{7}x = -y$$

$$2y = 7 + 5x$$

7. Solve for y if $x = 3$ in the equation: $\log_4 y = 2x - 1$

8. Solve for n in the equation: $1.96\sqrt{\frac{.25}{n}} \leq .02$

9. Evaluate 7!

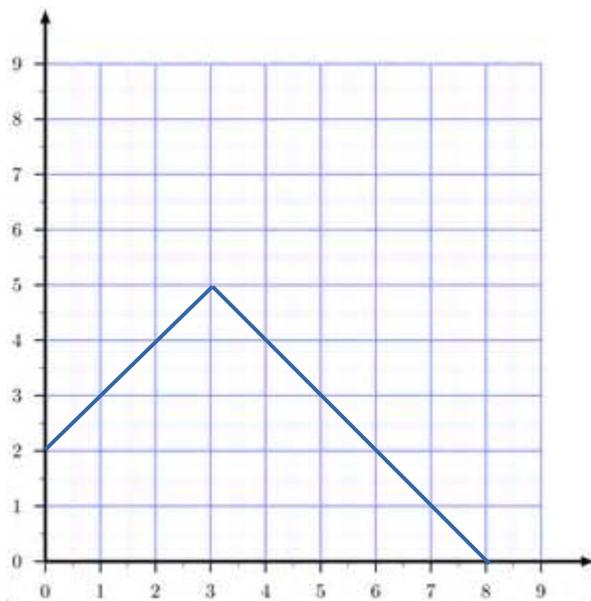
10. Simplify $\frac{19!}{11!8!}$

11. Solve for x: $-6 \log_3(x-3) = -24$

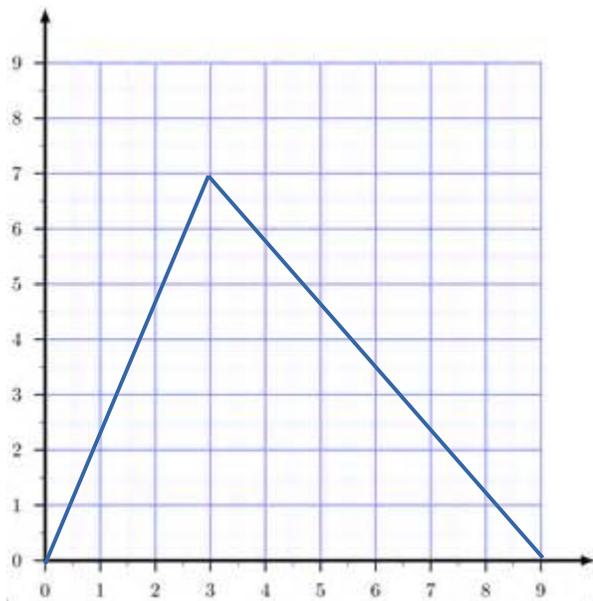
12. Evaluate: $(.73 - .68) \pm \sqrt{\frac{.73 * .27}{200} + \frac{.68 * .32}{180}}$ give answer as an interval (lower, upper)

13. Find the area under the curve: (hint: use geometry area formulas, divide into shapes if needed)

a.



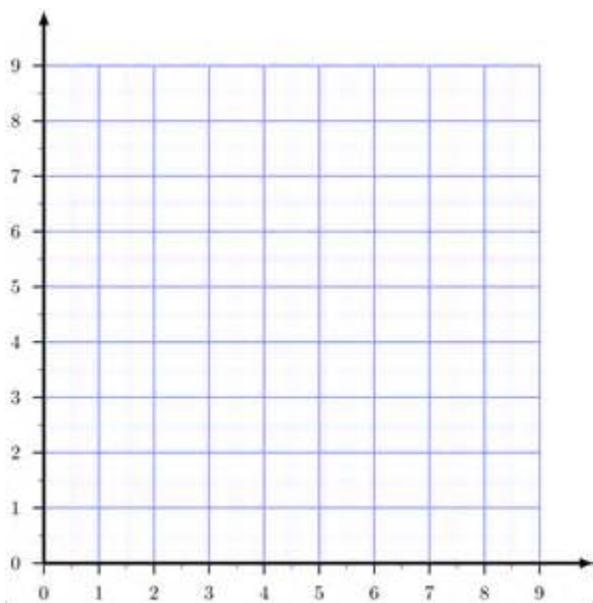
b.



14. a. Complete the table below:

x	$y = 2^x$	$y^* = \log y$ (four decimal places)
0		
.5		
1		
1.5		
2		
2.5		
3		

b. graph $y = 2^x$ and $y^* = \log 2^x$ on the same axes:



c. Which graph is linear?

d. Write the equation of the line for the graph that is linear in slope-intercept form.