

Name: _____

Due Monday, March 26th

30 WEEK TEST REVIEW PACKET

The following problems can be solved by using the knowledge in your brain and, if needed, your notes and these links can help you as well. This document will be uploaded onto my website so that you can copy and paste the links in case you don't feel like typing them out. Show all work. This is due on 3/26/2018.

My website: <https://www.mscolemaritime.weebly.com/foundations>

For #1-5, solve the equations. (Notes #7-9)

This video may help you: <https://www.youtube.com/watch?v=fDMxOiS5g7k>

1. $x + 11 + 8x = 29$

4. $6x - 3 = 2x + 13$

2. $\frac{x}{4} + 3 = 19$

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

3. $2(x + 3) + 7x = 96$

For #6-8, solve the inequalities. (Notes #11-14)

This video may help you: <https://www.youtube.com/watch?v=t3-2PVR5Ios>

6. $7x - 5 \geq 2$

8. $2(x + 5) - 11x \leq 19$

7. $\frac{1}{2}x - 5 \leq 3$

For #8-9, solve the compound inequalities. (Notes #17-18)

This video may help you: <https://www.youtube.com/watch?v=A3xPhzs-KBI>

9. $-16 \leq 5x - 6 < 14$

10. $-3x - 4 < -10$ or $2x + 7 \leq 9$

For #11, find the slope of the line. (Notes #31-32)

This video may help you: <https://www.youtube.com/watch?v=1Cm7hjMUsrQ>

11. What is the slope of the line that passes through the points (4, 4) and (7, -2)?

For #12, write the equation of the line given the slope and the y-intercept. (Notes #34)

This video may help you: <https://www.youtube.com/watch?v=fr9w7PCxDGE>

12. Write the equation of the line that has a slope of -2 and a y-intercept of 7 .

For #13, write the equation of the line given the slope and a point. (Notes #34)

This video may help you: <https://www.youtube.com/watch?v=MxiqyE2uMCo>

13. Write the equation of the line that has a slope of $\frac{1}{2}$ and passes through the point (6, -3).

For #14, write the equation of the line given two points. (Notes #35)

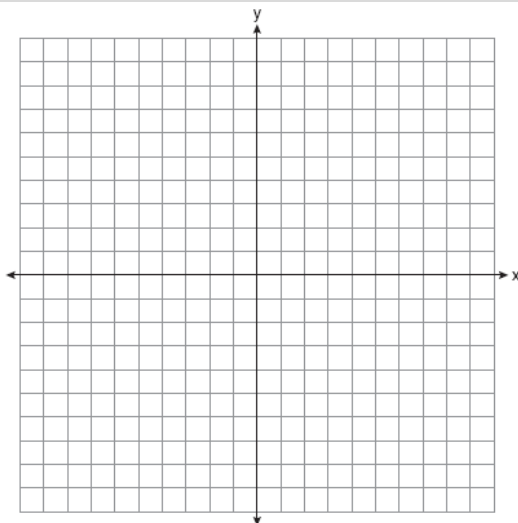
This video may help you: <https://www.youtube.com/watch?v=3t7E8PTfey0&t=31s>

14. Write the equation of the line that passes through the points (4, 9) and (-2, 6)

For #15, graph the equation on the given coordinate plane. (Notes #32)

This video may help you: <https://www.youtube.com/watch?v=xyVJZKu7Euw>

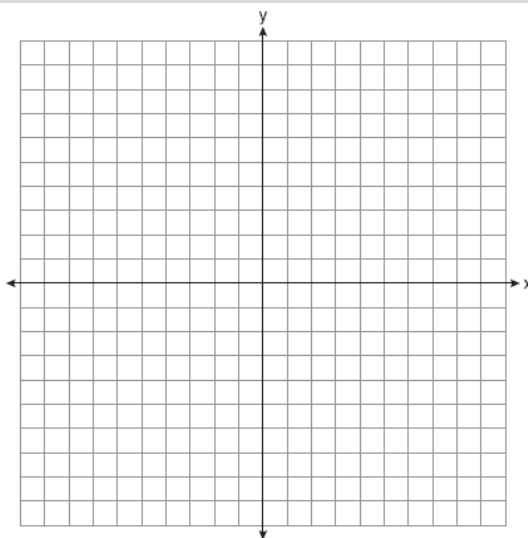
15. $y + \frac{1}{3}x = -4$



For #16, graph the inequality and name a point in the solution. (Notes #42)

This video may help you: <https://www.youtube.com/watch?v=P-c9D6mjGA>

16. $3y \geq 6x - 12$



For #17, solve this system of equations using *substitution*: (Notes #44)

This video may help you: https://www.youtube.com/watch?v=kf-o_CcTKH8

17.
$$\begin{cases} 4x + 2y = 10 \\ y - x = -13 \end{cases}$$

For #18, solve this system of equations using *elimination*: (Notes #46)

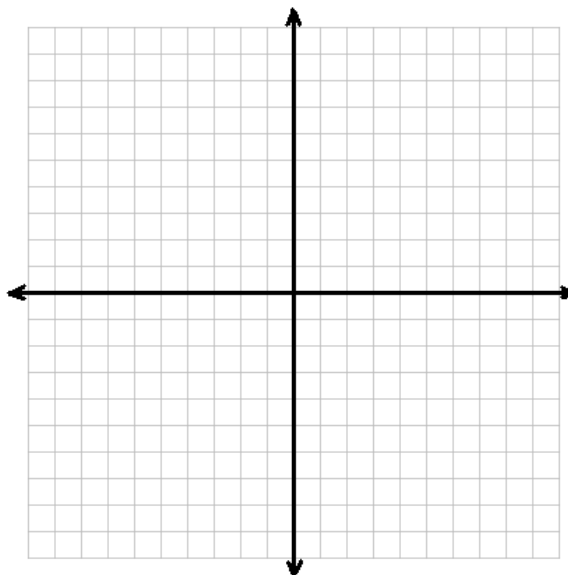
This video may help you: <https://www.youtube.com/watch?v=8kRG7jIBMAY&t=831s>

$$18. \begin{cases} 8x - 6y = -20 \\ -16x + 7y = 30 \end{cases}$$

For #19, graph the following system of equations and name a point in the solution set. (Notes #43)

This video may help you: <https://www.youtube.com/watch?v=CA4S7S-3Lg4>

$$19. \begin{cases} y - 3x > -4 \\ 2y + x \leq 4 \end{cases}$$



For #20, write the *explicit* rule for sequence. (Notes 53)

This video may help you: <https://www.youtube.com/watch?v=2PIHWfvJUHw> (at 6:03)

$$20. 2, 8, 14, 20, \dots$$

For #21, use the formula to solve the exponential decay problem. (Notes #59)

This video may help you: <https://www.youtube.com/watch?v=Wt4KJfBwSml>

21. A computer valued at \$1500 depreciates at a rate of 20% each year. Find the value of the computer after 3 years.

For #22, use the correct formula to solve the compound interest problem. (Notes #57)

This video may help you: <https://www.youtube.com/watch?v=WgTN3hQuMEA>

22. You are going to take out a \$15,000 loan with a 4% interest rate compounded monthly. How much money will you owe the bank if you wait 5 years to pay back your loan?

For #23, subtract the polynomials. (Notes #69)

This video may help you: <https://www.youtube.com/watch?v=XARL5uvZYKc> (at 1:45)

23. When $2x^2 - 5x + 8$ is subtracted from $6x^2 + 3x - 2$ the result is...

For #24, find the sum. (Notes #68)

This video may help you: <https://www.youtube.com/watch?v=ahdKdxsTj8E>

24. Simplify: $(3x^2 + x + 8) + (x^2 - 9)$

For #25, find the product. (Notes #72-73)

This video may help you: <https://www.youtube.com/watch?v=OdxknmZgKyw>

25. Simplify: $(2x^2 + 5x + 1)(x^2 - 3)$