Welcome to Algebra 1 Honors!

On the following pages you will find your summer assignment for the upcoming school year.

Note to the Student:

The purpose of this assignment is to review topics that are essential to your success in Geometry Honors. It will be assumed that all the topics covered in this assignment, and in your previous math courses, have been mastered and will not need explanation as we use them in the Geometry Honors course.

• The packet is to be completed and is due on the first day of school. You may print this packet or complete it electronically on your iPad using Notability.

• Follow all directions given on each page to receive credit (specifically, showing work and where to write your answers). No work = No credit.

• The assignment will be collected for a grade (Note: the grade will be based on completion).

• To help you review and complete your packet, there are videos corresponding to sections of the packet. These videos may be accessed on any web-connected device with any web browser.

• Each video shares the identical title to the corresponding section in the summer packet. For the Khan Academy videos, you will find practice problems on the same webpage so that you can practice and get feedback.

I hope you have a great summer!

Sincerely,

Mrs. Tina Wooles

wooles.tina@cchs.us

Linear Expressions

Standard: MA.7.AR.1.1

Add or subtract the linear expressions and simplify. Show all work. Box all answers.

Click HERE to watch a helpful video.

1. $(6x - 5) - 2(4x - 3)$

2. $(5 + x) + x - 11$

3. $3(1 - 2x) - (3x - 5)$

4. $x + 4 - (1 - x)$

Factoring Expressions

Standard: MA.8.AR.1.3

Factor the following completely. Show all work. Box all answers.

Click HERE to watch helpful videos.

1. $6 - 8x$

2. $11 + 33x^2$

3. $20x - 15$

4. $12 - 32x$

Linear Equations

Standard: MA.8.AR.2.1

Solve the multi-step equations for the variable. Show all work. Box all answers.

Click HERE to watch a helpful video.

5. $\frac{3}{4}x + 2 = \frac{1}{4}x + 5$

6. $\frac{1}{2}x - 3 = \frac{5}{6}x$

7. $2x - \frac{2}{3} = \frac{1}{3}x + \frac{8}{3}$

8. $2 - \frac{1}{2}x = \frac{3}{2}x - 6$

Inequalities

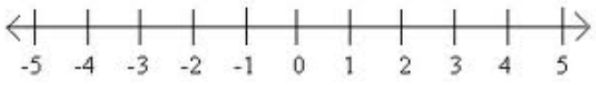
Standard: MA.8.AR.2.2

Solve the inequality and graph solution on the number line. Show all work. Box all answers.

Click HERE to watch a helpful video.

1. $3x - 2 > 7$

2. $2(5 - x) > 6$



3. $3 - 2x \leq 11$

4. $4(x - 1) \geq 12$

Square Roots and Cube Roots

Standard: MA.8.AR.2.3

Solve the following equations and list all solutions. Show all work. Box all answers.

Click HERE and HERE to watch helpful videos.

1. $x^2 = 64$

2. $x^3 = 64$

3. $x^2 = 196$

4. $x^3 = -27$

Linear Equations

Standard: MA.8.AR.3.2

Determine the slope of the line represented in the table. Show all work. Box all answers.

Click HERE to watch a helpful video.

1.

x	-1	0	1	2
y	2	-3	-8	-13

2.

x	1	4	7	10
y	-5	-7	-9	-11

3.

x	y
2	2
4	5
6	8
8	11

4.

x	y
11	4
13	1
15	-2
17	-5

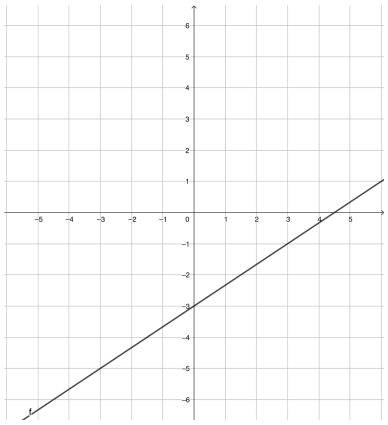
Writing Linear Equations

Standard: MA.8.AR.3.3

Write the equation of the line in slope-intercept form. Show all work. Box all answers.

Click HERE to watch a helpful video.

1.



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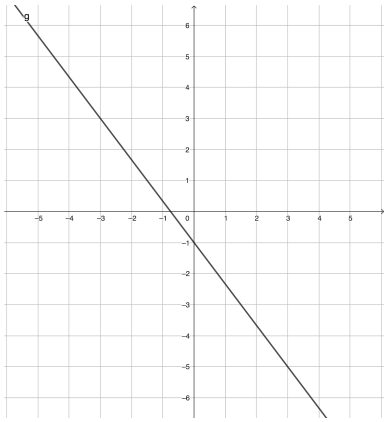

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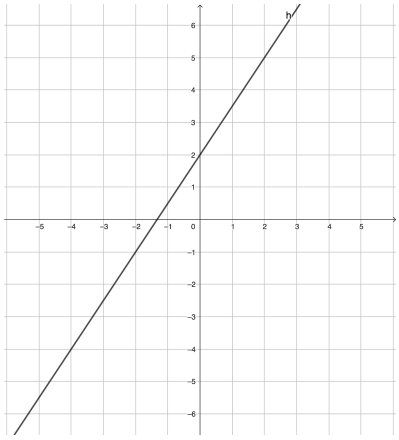

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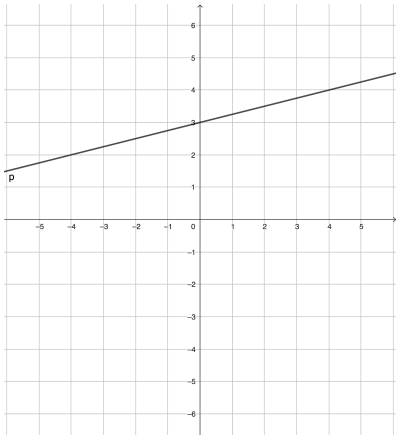


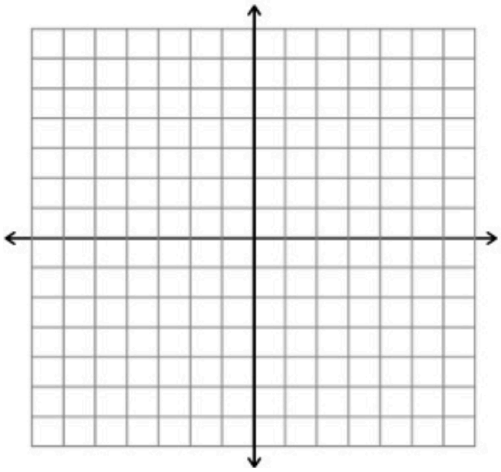
Graphing Linear Equations

Standard: MA.8.AR.3.4

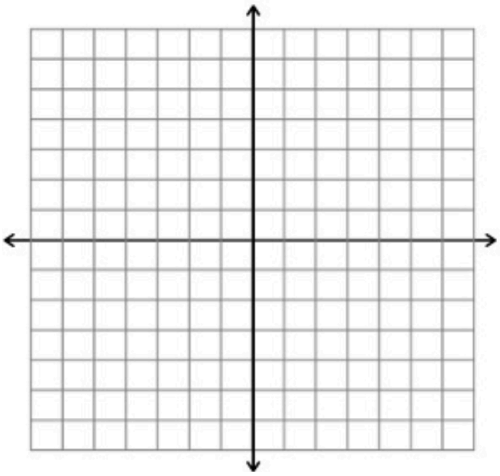
Graph the linear equations on the graph provided. Show all work.

Click HERE to watch a helpful video.

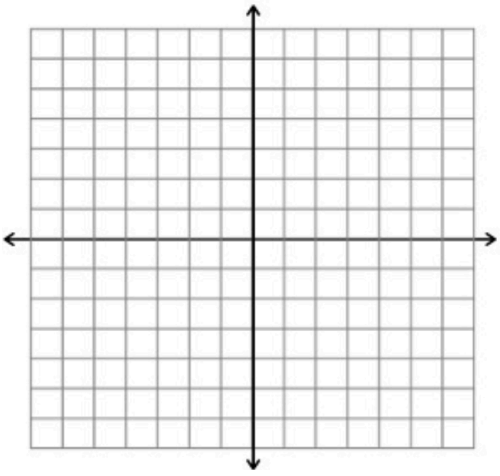
5. $y = \frac{1}{3}x + 2$



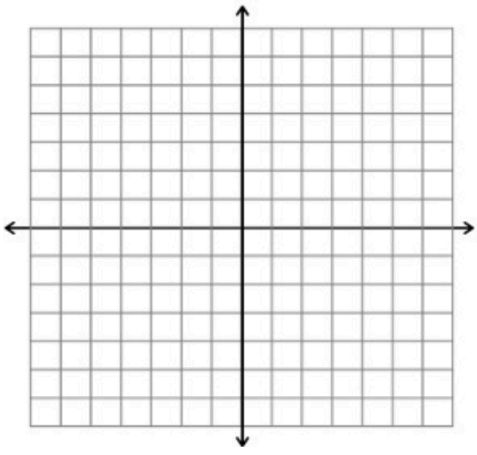
6. $y = 3 - 2x$



7. $y = -\frac{5}{2} + 4$



8. $y = -x - 2$



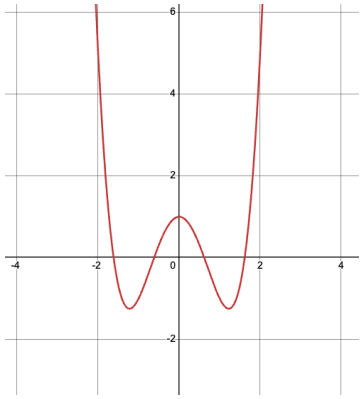
Increasing, Decreasing or Constant

Standard: MA.8.F.1.3

For each region, identify if the function is increasing, decreasing or constant. Answer on the line provided.

Click HEREand HERE for helpful videos.

1.



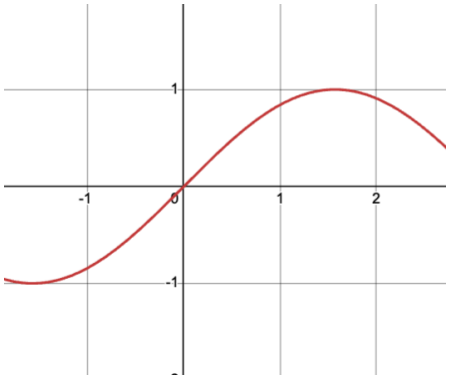
On the interval $0 \leq x \leq 1$, the function is

_____

On the interval $-2 \leq x \leq -1$, the function is

_____

2.



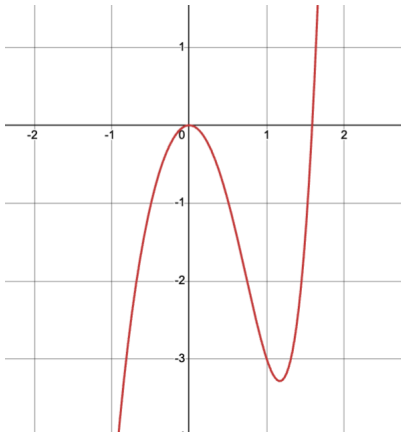
On the interval $0 \leq x \leq 1$, the function is

_____

On the interval $-1 \leq x \leq 0$, the function is

_____

3.



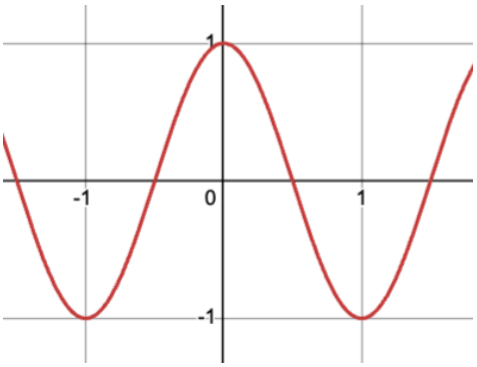
On the interval $0 \leq x \leq 1$, the function is

_____

On the interval $-1 \leq x \leq 0$, the function is

_____

4.



On the interval $0 \leq x \leq 1$, the function is

_____

On the interval $-1 \leq x \leq 0$, the function is

_____