

Teachers: Castello, Pereira, Piuser, Tober

Course: Algebra 1

Periods: all

Assignment: Week 4 – Graphing

Teacher: Castello, Pereira, Piuser, Tober

Subject: Algebra 1

Dates: Week 4: 5/11 - 5/15

Welcome to our Distance Learning Classroom!

Student Time Expectation per day: 30 minutes

Content Area & Materials Algebra 1	Learning Objectives	Tasks	Check-in Opportunities	Submission of Work for Grades
PAPER PACKET - Weekly Planner (this sheet) - Note page with examples 3 worksheets on graphing equations and inequalities. Digital Option - Log on to your khan academy account at www.khanacademy.org - Complete the khan academy activities assigned by your teacher.	ESSENTIAL QUESTION: How do you graph linear equations and inequalities on the coordinate plane? STUDENTS WILL... - Be able to use the slope and y-intercept to graph an equation. - Be able to identify the graph of equations. - Be able to graph the solutions of an inequality on a coordinate plane.	PAPER PACKET: If you picked up a paper packet you are expected to turn in the 3 completed pages in order to get credit for week 4. (per distance learning calendar, week 4 work is due May 15). You are also welcome to scan or take photos of your work and email them to your teacher. ONLINE WORK: You are to complete the assigned Khan academy activities by May 15.	OFFICE HOURS: Mrs. Castello: Office Hours: Mon - Fri, 9am - 11am Email: ecastello@tusd.net Google #: (209) 597-8667 Ms. Pereira: Office Hours: Zoom meeting Mon-Fri, 12pm - 1pm Email: mpereira@tusd.net Google #: (209) 597-8039 Mr. Piuser: Office Hours: Mon-Fri, 12pm - 2pm Email: apiuser@tusd.net Google #: (209) 691-3102 Mrs. Tober: Office Hours: Mon - Fri, 1pm - 3pm Email: jtober@tusd.net Google #: (209) 597-8704	Students are expected to complete either the paper packet <u>or</u> the digital option in order to receive full credit. Students <u>must</u> include the work required to arrive at the correct answer. IF SUBMITTING THE PAPER PACKET, LABEL WITH: - Student Name (First and Last) - Teacher Name - Algebra 1 - Period #: _____ PREFERRED: TO SUBMIT ELECTRONICALLY, simply email your teacher a scan or photos of your completed work.

Definitions

Slope: How far up or down, divided by how far to the right to get from one point to the next.

Intercept: Where a graphed line crosses the x- or y-axis. Slope-Intercept Form gives the y-intercept.

Boundary Line: the line that separates the shaded region of an inequality from the rest of the graph.

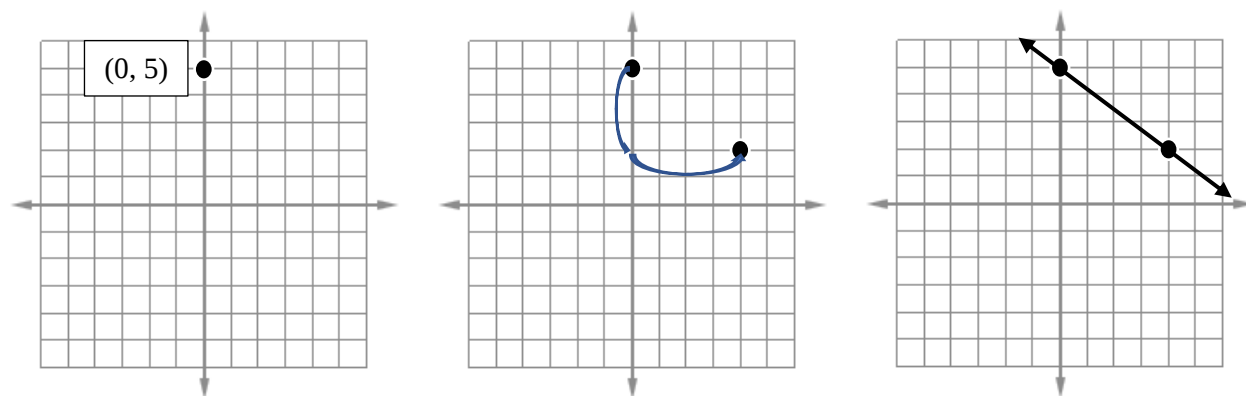
Boundary lines can be solid or dotted.

Graphing Slope-Intercept Form

Ex: $y = -\frac{3}{4}x + 5$

The slope is “down 3 (because of the negative) and right 4”

The first point (the y-intercept) is at (0, 5)

Graphing Inequalities

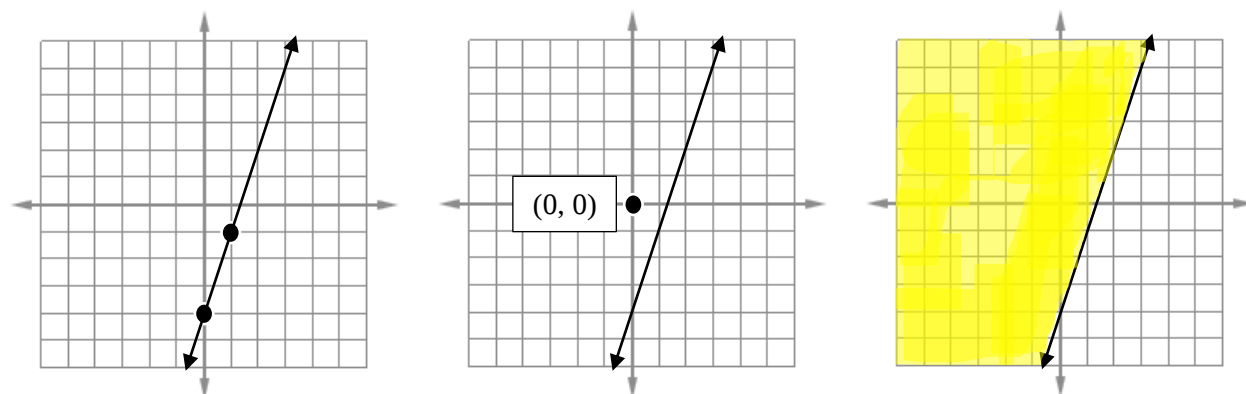
Ex: $y \geq 3x - 4$

Boundary line is $y = 3x - 4$ and is solid ($>$ and $<$ are dotted).

Test the point (0, 0): $0 > 3(0) - 4$

$$0 > 0 - 4$$

$0 > -4 \leftarrow$ True statement, so shade towards the point

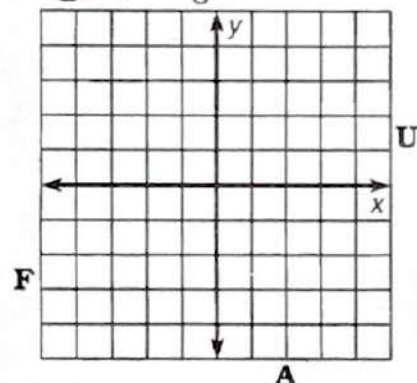


What Happened to the Little Boy Who Swallowed a Silver Dollar?

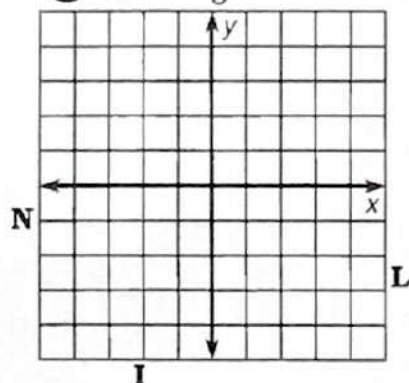
Use the slope and y-intercept to graph each equation. The graph, if extended, will cross a letter outside the grid. Look for this letter in the string of letters at the bottom of the page and cross it out each time it appears. When you finish, write the remaining letters in the rectangle at the bottom of the page.



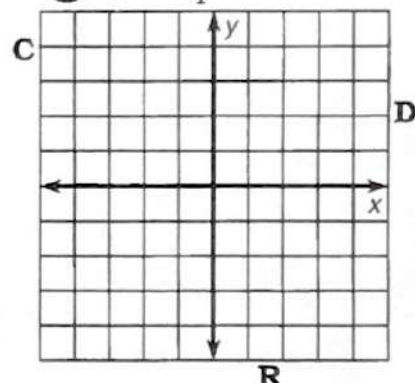
① $y = \frac{2}{3}x + 1$



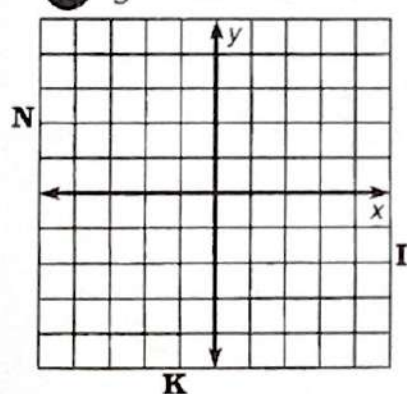
② $y = -\frac{2}{3}x + 1$



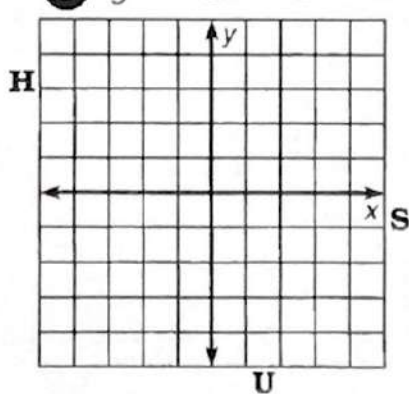
③ $y = \frac{3}{4}x - 2$



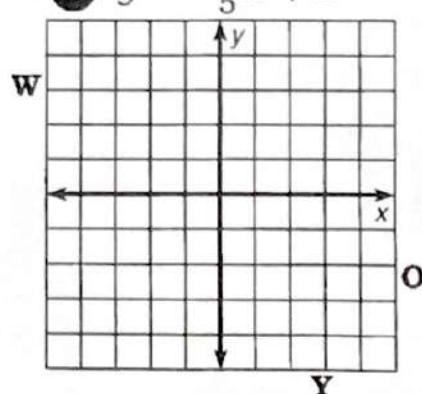
④ $y = 2x - 3$



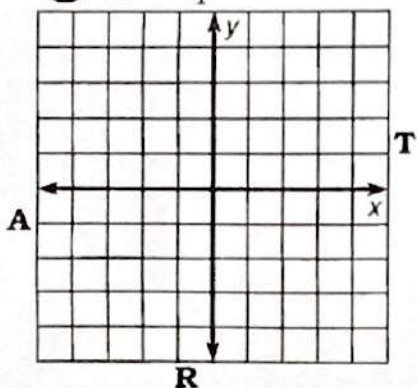
⑤ $y = -3x - 1$



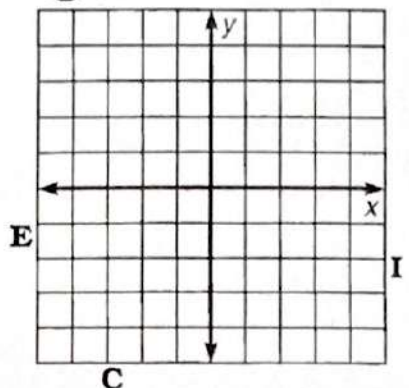
⑥ $y = -\frac{1}{5}x + 2$



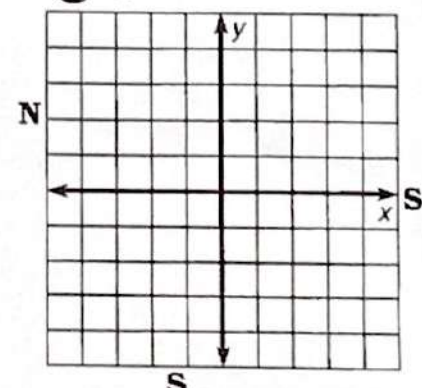
⑦ $y = \frac{7}{4}x - 4$



⑧ $y = -x + 3$



⑨ $y = 4x$

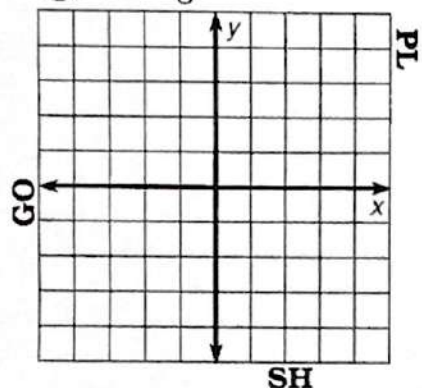


R I N D S O C K W H I F R A N U L I G E Y W E D S T
answer to puzzle:

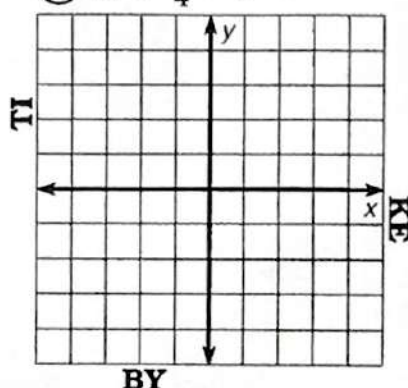
How Might a Psychiatrist Describe a Paper Plate?

Graph the inequality. Each graph, if extended, would shade a pair of letters outside the grid. Write these letters in the two boxes above the exercise number at the bottom of the page.

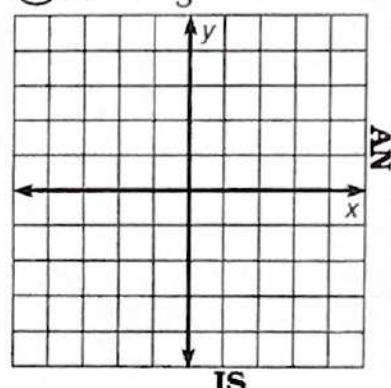
① $y \leq \frac{2}{3}x - 1$



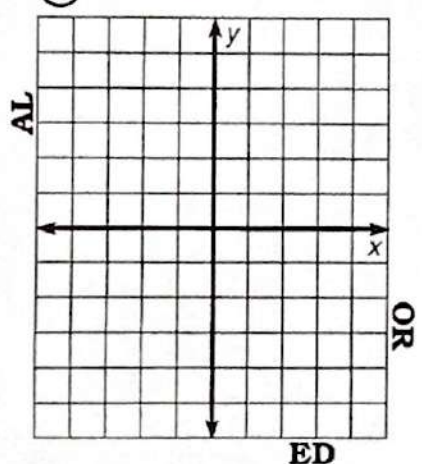
② $y \geq \frac{1}{4}x + 2$



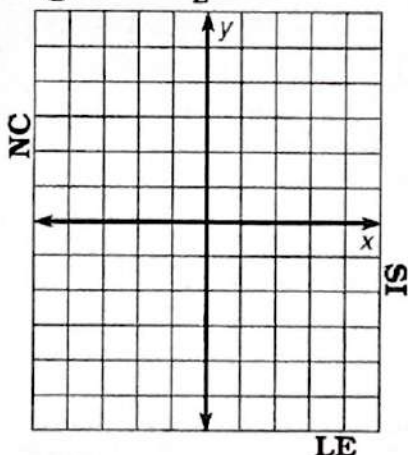
③ $y < -\frac{2}{3}x + 1$



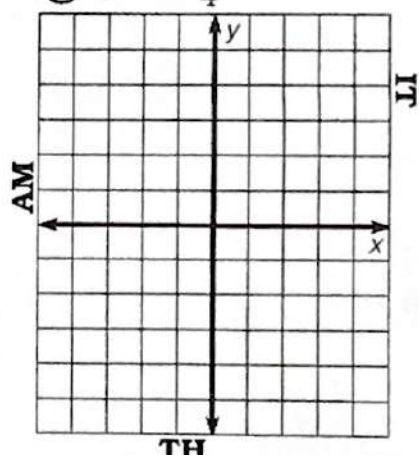
④ $y > 2x - 3$



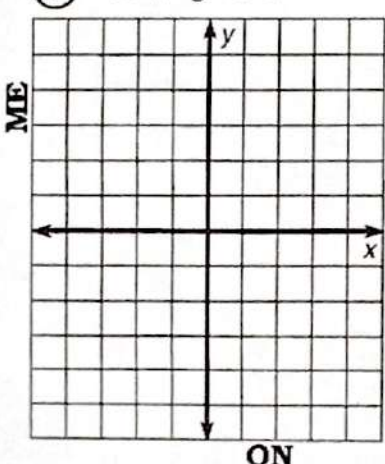
⑤ $y \leq -\frac{5}{2}x - 4$



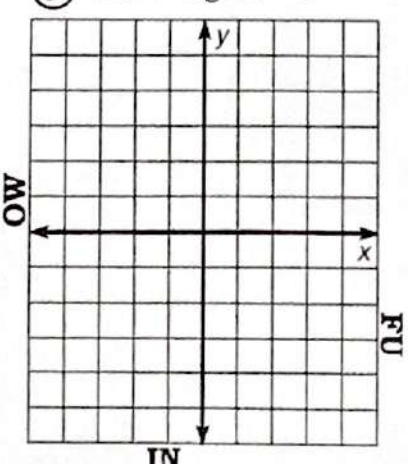
⑥ $y > -\frac{3}{4}x$



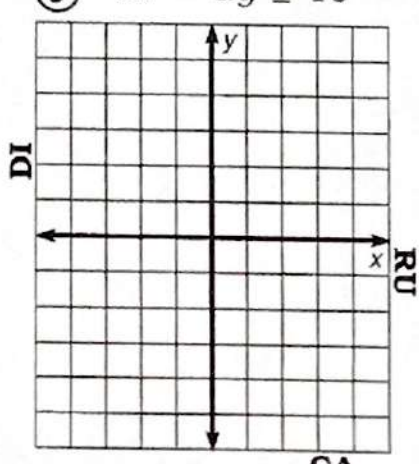
⑦ $-x + y < 4$



⑧ $7x + 3y \geq -6$



⑨ $-6x - 2y \geq 10$



6	3	9	1	8	5	2	7	4
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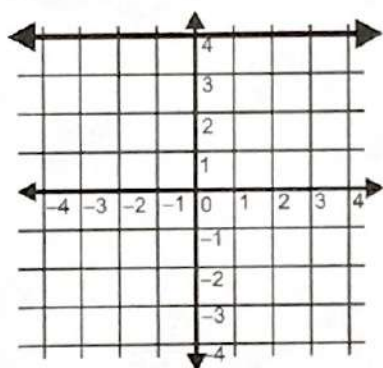
IDENTIFYING GRAPHS OF LINEAR EQUATIONS

Match each equation below with the graph of the equation.

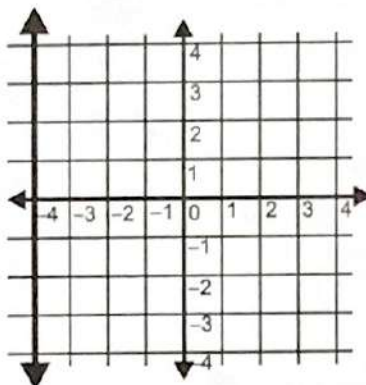
- A: $x = y$
 B: $x = -4$
 C: $y = -x$

- D: $y = 4$
 E: $x = \frac{1}{2}y$
 F: $y = -4$

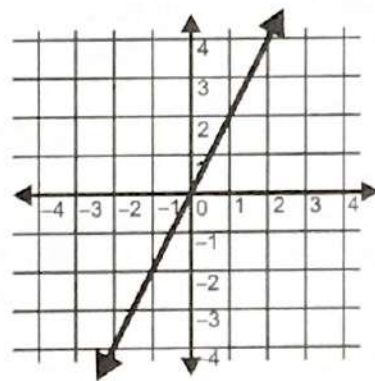
- G: $x = -2y$
 H: $4x = y$
 I: $-2x = y$



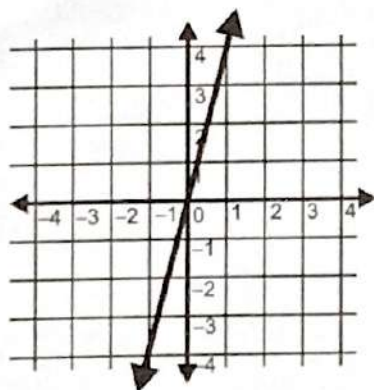
1. _____



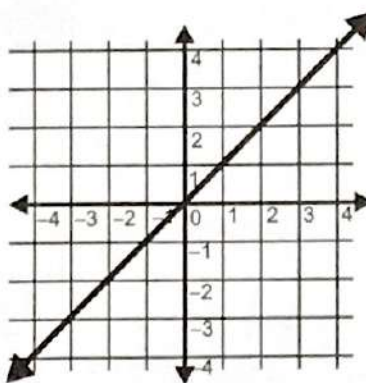
2. _____



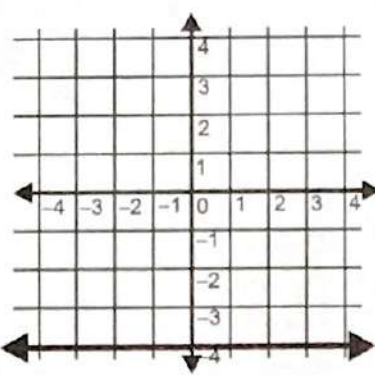
3. _____



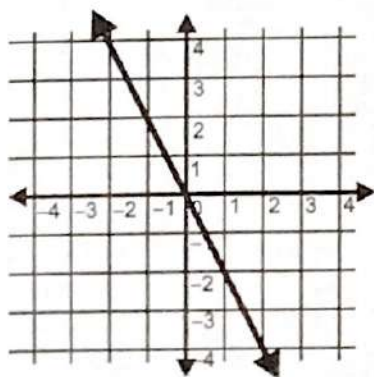
4. _____



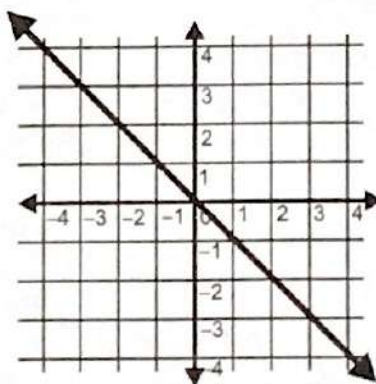
5. _____



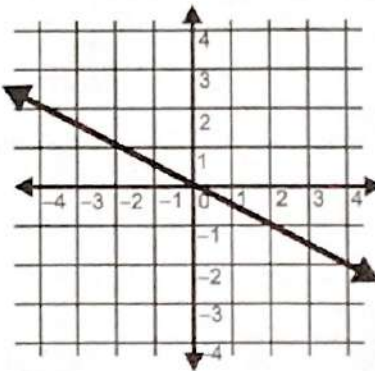
6. _____



7. _____



8. _____



9. _____