

FdM1 – Unit 3 Graphing Lines Project: Mapping Your Way Through the Streets

DUE DATE: _____

Objective:

Create and design a map on a coordinate plane by graphing various lines (streets) given different information about each line. In addition, plot popular locations on the map and describe their exact location (point) and label the locations according to the legend on the map. You will need to apply your skills of graphing lines and transform your linear equations into one of the three forms that are specified.

Directions:

- 1.) Find the equation of each linear equation which represents a street on your map.
Make sure you write your equation in the form that is specified for that street.
You will need to write your street's equation on your map's legend.
You will **NEED SHOW YOUR WORK** on the "Work Sheet" and turn it in with your map.
- 2.) Graph your equation and color that line in the color **you specified** on your map's legend for that street. I will be checking for accuracy so **DON'T BE SLOPPY...BE AS EXACT AS POSSIBLE!**
- 3.) After graphing all of your lines (streets), plot points for each specified location.
Make sure to label that point with the **CORRECT LETTER** and **COLOR** for that location. **SEE MAP.**
- 4.) When you are completely finished, **GLUE** your map onto a piece of construction paper.
Staple your "Work Sheet" and your Project Rubric to the construction paper.
Put your name **ON THE BACK** of the construction paper!

CUT ON THIS LINE AND STAPLE THIS BOTTOM PORTION TO THE FRONT OF YOUR PROJECT (Make sure to include your name)

Name: _____ Date: _____ Pd: _____

FdM1: Graphing Linear Equations Project RUBRIC

- 1.) Each street (linear equation) is graphed correctly and accurately on the map..... _____ out of 24 pts
 - 2.) Work for each street's equation is shown on the Work Sheet..... _____ out of 36 pts
 - 3.) Each street (linear equation) is colored correctly based on your map's legend..... _____ out of 12 pts
 - 4.) Each street's equation is written on your map's legend in the correct form..... _____ out of 12 pts
 - 5.) Location's points are plotted, colored, and labeled correctly on the map..... _____ out of 12 pts
 - 6.) Project is **TURNE**D in by **DEADLINE** and **RUBRIC** is attached to project..... _____ out of 4 pts
- TOTAL..... _____ out of 100 pts**

<p>This a PROJECT GRADE which counts as a QUIZ GRADE! If you don't show work, your grade will automatically be a "F"!</p>

FdM1 – Unit 3 Mapping Your Way Through the Streets **Work Sheet**

<p>Street A passes through $(-2, 6)$ and $(3, -4)$. Write this street's equation in slope intercept form.</p>	<p>Street B has a slope of $\frac{1}{4}$ and passes through $(4, 6)$. Write this street's equation in standard form.</p>
<p>Street C is perpendicular to Street A and passes through $(4, -6)$. Write this street's equation in standard form.</p>	<p>Street D has a x-intercept of 5 and a y-intercept of -4. Write this street's equation in point slope form using the x-intercept as (x_1, y_1).</p>
<p>Street E has a y-intercept of -13 and passes through $(-9, -4)$. Write this street's equation in slope intercept form.</p>	<p>Street F is parallel to the line $y = -\frac{3}{4}x + 2$ and passes through the same point in Street B. Write the street's equation in slope intercept form.</p>
<p>Street G has a slope of zero and goes through $(3, -10)$. Write this street's equation in slope intercept form.</p>	<p>Street H is perpendicular to the line $2x - 3y = -4$ and goes $(0, -6)$. Write this street's equation in standard form.</p>

<p>Street I passes through $(-7, 8)$ and $(-16, -4)$. Write this street's equation in standard form.</p>	<p>Street J has no slope and goes through the same x-intercept as Street F. Write this street's equation in standard form.</p>
<p>Street K passes through $(-15, -1)$ and is parallel to the line $x - 5y = 10$. Write this street's equation in point slope form.</p>	<p>Street L is perpendicular to and has the same y-intercept as the line $5x + 6y = 78$. Write this street's equation in standard form.</p>
<p>The location of McDonald's is near the intersection of Street B and Street J.</p>	<p>The location of Havelock HS is near the intersection of Street C and Street E.</p>
<p>The location of Planet Fitness is near the intersection of Street G and Street L.</p>	<p>The location of Wal-mart is near the intersection of Street D and Street K.</p>
<p>The location of Dunkin is near the intersection of Street F and Street I.</p>	<p>The location of AMC Theater is near the intersection of Street A and Street C.</p>

Mapping Your Way Through the Streets LEGEND

○ → Street A's Equation: _____

○ → Street B's Equation: _____

○ → Street C's Equation: _____

○ → Street D's Equation: _____

○ → Street E's Equation: _____

○ → Street F's Equation: _____

○ → Street G's Equation: _____

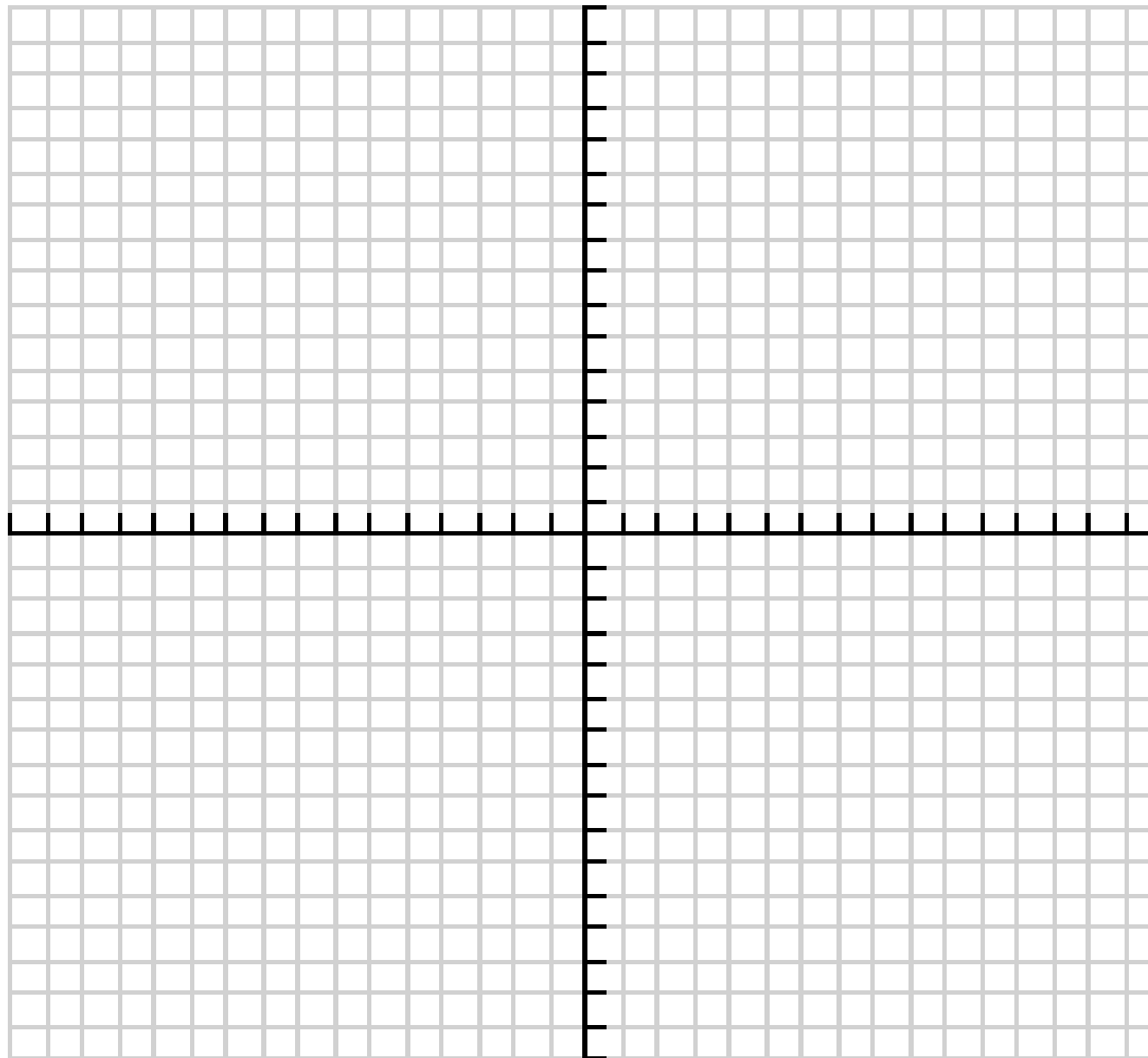
○ → Street H's Equation: _____

○ → Street I's Equation: _____

○ → Street J's Equation: _____

○ → Street K's Equation: _____

○ → Street L's Equation: _____



M → Point for McDonald's: _____

H → Point for Havelock HS: _____

D → Point for Planet Fitness: _____

W → Point for Walmart: _____

D → Point for Dunkin: _____

A → Point for AMC Theater: _____