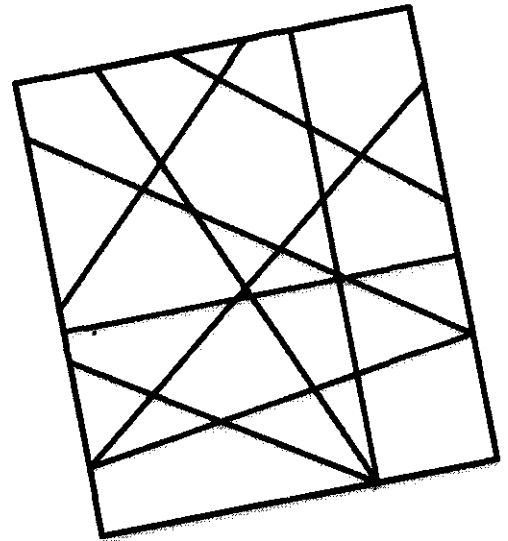


# SLOPE Stained Glass Project



## Directions

1. Choose 3 linear equations from each column on page 2. Circle each equation you choose.
2. Create a value table on the worksheet (pages 2-3) for each of the equations you have chosen.
  3. Record the slope and y-intercept for each line on the worksheet.
4. Using the coordinates in the value tables, graph each of the equations on the graph paper provided. Extend the lines to the edges of your graph paper.
  5. Neatly write the equation on each line.
6. Trace over the lines and equations/intercepts you have graphed with a black marker.
7. Color in the sections formed by the lines to create your stained glass window. Your entire page should be colored all the way to the edges.

Name: \_\_\_\_\_

# SLOPE

## Stained Glass Window Project

### Grading Rubric

	1	2	3	4
<b>Worksheet (value tables, slope and intercepts)</b>	Worksheet is not turned in with the project or is turned in with many mathematical mistakes	Worksheet is turned in but has several math errors	Worksheet is turned in and is free of math errors	Worksheet is turned in, is free of math errors, and is neatly written
<b>Lines and Labels</b>	Less than 12 lines are drawn and there are no labels	Less than 12 lines are drawn and labels are hard to read and/or are not on the line	All 12 lines are drawn correctly, labels are clear and on the line	All 12 lines are drawn correctly, labeling is clear, on the line and outlined in black marker
<b>Color</b>	Project has no color	Project is partially colored, uses a few different colors but coloring is not neatly done	Project is fully colored, uses many colors, and has a colorful pattern	Project is fully colored with many different colors. It has a colorful pattern and is mounted on colored paper
<b>Visual Presentation</b>	Project is sloppy, lines are not straight, and little creativity is evident	Project has mostly straight lines, but the project does not look neat and is not creative	Project has straight lines and a straightedge has been used. Project is neat and visually appealing	Project has all straight lines, and it is clear a straightedge has been used. Overall appearance is very neat, visually appealing, and creative.

Choose 3 equations from each column to graph. Circle the equations you choose.

$x = 4$	$y = 3$	$y = x + 1$	$y = -x$
$x = -4$	$y = -7$	$y = 2x + 6$	$y = -5x$
$x = 6$	$y = 5$	$y = \frac{1}{4}x - 1$	$y = -3x - 3$
$x = -6$	$y = -10$	$y = x - 3$	$y = -x - 2$
$x = 10$	$y = 13$	$y = \frac{1}{2}x + 3$	$y = -x + 4$
$x = -10$	$y = -14$	$y = 4x + 3$	$y = -x - 12$
$x = -2$	$y = 8$	$y = \frac{1}{2}x - 4$	$y = -x - 9$

Complete one value table for each equation you circled above.

Equation:

x	y	(x, y)

Slope: \_\_\_\_\_

y-intercept: \_\_\_\_\_

Equation:

x	y	(x, y)

Slope: \_\_\_\_\_

y-intercept: \_\_\_\_\_

Equation:

x	y	(x, y)

Slope: \_\_\_\_\_

y-intercept: \_\_\_\_\_

Equation:

x	y	(x, y)

Slope: \_\_\_\_\_

y-intercept: \_\_\_\_\_

Equation:

x	y	(x, y)

Slope: \_\_\_\_\_

y-intercept: \_\_\_\_\_

Equation:

x	y	(x, y)

Slope: \_\_\_\_\_

y-intercept: \_\_\_\_\_

Equation:

x	y	(x, y)

Slope: \_\_\_\_\_

y-intercept: \_\_\_\_\_

Equation:

x	y	(x, y)

Slope: \_\_\_\_\_

y-intercept: \_\_\_\_\_

Equation:

x	y	(x, y)

Slope: \_\_\_\_\_

y-intercept: \_\_\_\_\_

Equation:

x	y	(x, y)

Slope: \_\_\_\_\_

y-intercept: \_\_\_\_\_

Equation:

x	y	(x, y)

Slope: \_\_\_\_\_

y-intercept: \_\_\_\_\_

Equation:

x	y	(x, y)

Slope: \_\_\_\_\_

y-intercept: \_\_\_\_\_