Graphing Linear Equations Agenda

This lesson is for 3-4 class periods.

Give pretest

Introduce the functions and generating points

Use worksheets for in class or homework.

Resource: Number Power 2 pp. 108 - 117

Give posttest.
Learning Goal: Student is able to graph a linear equation and identify the slope using $y=mx+b$ and rise/run concepts.

<table>
<thead>
<tr>
<th>GOALS</th>
<th>Description</th>
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<tbody>
<tr>
<td><strong>4</strong></td>
<td>Student correctly graphs and identifies slope nearly all of the time. They are able to instruct others how to perform these skills, and demonstrate and independence when working on problems.</td>
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<tr>
<td><strong>3</strong></td>
<td>Student is able to graph a linear equation and identify the slope using $y=mx+b$ and rise/run concepts.</td>
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<tr>
<td><strong>2</strong></td>
<td>Student demonstrates some ability to correctly graph and identify the slope of a line, but isn’t able to complete (50%) on their own.</td>
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<tr>
<td><strong>1</strong></td>
<td>Student has an understanding of the vocabulary: slope, line, linear equation. They are not able to perform these skills yet.</td>
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Graphing linear equations

Pre-Test

Directions: Graph the equation on a coordinate grid.

1. \( y = 3x - 4 \)

Directions: Find the slope of the line.

2.
Graphing Lines

Sketch the graph of each line.

1) \( y = \frac{7}{2}x - 2 \)

2) \( y = -6x + 3 \)

3) \( y = -5 \)

4) \( y = \frac{6}{5}x + 1 \)

5) \( y = \frac{1}{4}x + 2 \)

6) \( x = 5 \)
7) \( y = \frac{-5}{3}x \)

8) \( x = 0 \)

9) \( y = -\frac{1}{3}x + 3 \)

10) \( y = \frac{1}{5}x - 4 \)

11) \( y = \frac{1}{2}x - 2 \)

12) \( y = 2x + 5 \)
Graphing Lines

Sketch the graph of each line.

1) \( y = \frac{7}{2}x - 2 \)

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11) \( y = \frac{1}{2}x - 2 \)

12) \( y = 2x + 5 \)
Graphing Lines

Sketch the graph of each line.

1) \(x + y = -4\)

2) \(x - y = -2\)

3) \(2x + y = 1\)

4) \(2x + y = 4\)

5) \(x - 3y = 6\)

6) \(x + 2y = 8\)
7) \( y = -4 \)

8) \( x + 2y = 0 \)

9) \( x - 2y = -4 \)

10) \( 2x + 3y = 6 \)

11) \( x = 5 \)

12) \( 5x - 2y = 10 \)
Graphing Lines

Sketch the graph of each line.

1) \( x + y = -4 \)

2) \( x - y = -2 \)

3) \( 2x + y = 1 \)

4) \( 2x + y = 4 \)

5) \( x - 3y = 6 \)

6) \( x + 2y = 8 \)
7) \( y = -4 \)

8) \( x + 2y = 0 \)

9) \( x - 2y = -4 \)

10) \( 2x + 3y = 6 \)

11) \( x = 5 \)

12) \( 5x - 2y = 10 \)
Graphing linear equations

Post Test

**Directions:** Graph each equation on a coordinate grid.

1. $y = 3x - 4$

2. $y = -2x + 5$
Directions: Find the slope of each line (problem 3 and 4).

3.

4.

Directions: Solve the equation for y.

5.  $4x - y = 3$
Graphing Linear Equations Pre and Post Test Answers

Pre Test
1.
2. \( m = 1 \)

Post Test
1.
2.
3. 
4. \( \frac{4}{6} = \frac{2}{3} \)
5. \( y = 4x - 3 \)