

# Algebra I 2: Linear Equations

## Week 1: Slope - Intercept Form

- $y = mx + b$
- explain what each variable represents
- identifying slope and intercept from slope-intercept form
- graphing lines using slope-intercept form

To Practice:

Identify Slope and Intercept Worksheet:

<https://www.mathworksheets4kids.com/linear-equation/slope-intercept/equation-level1-1.pdf>

Graphing Lines Worksheet:

<https://cdn.kutasoftware.com/Worksheets/Alg1/Graphing%20Lines%20SI.pdf>

## Week 2: Writing Slope - Intercept Equations

- writing an equation using given slopes and intercepts
- writing an equation from a graph

To Practice:

Writing Equations Worksheets:

<https://www.mathworksheets4kids.com/linear-equation/slope-intercept/equation-1.pdf>

<https://www.khanacademy.org/math/algebra/x2f8bb11595b61c86:forms-of-linear-equations/x2f8bb11595b61c86:writing-slope-intercept-equations/e/slope-intercept-equation-from-graph>

## Week 3: Point-Slope and Standard Form

- point-slope vs. standard vs. slope-intercept form
- how to convert from one form to another

To Practice:

Point- Slope and Standard Form Worksheet:

<https://cdn.kutasoftware.com/Worksheets/Alg1/Writing%20Linear%20Equations.pdf>

## Week 4: Intro to Systems of Equations

- what are systems of equations?
- determining the solutions of systems of equations by plugging in
- solving systems of equations using graphing

To Practice:

Solutions of Systems of Equations (Khan Academy):

<https://www.khanacademy.org/math/algebra/x2f8bb11595b61c86:systems-of-equations/x2f8bb11595b61c86:introduction-to-systems-of-equations/e/verifying-solutions-to-systems-of-equations>

Systems of Equations by Graphing:

<https://cdn.kutasoftware.com/Worksheets/Alg1/Systems%20of%20Equations%20Graphing.pdf>

## Week 5: Systems of Equations - Substitution and Elimination

- solving systems of equations with substitution
- solving systems of equations with elimination

To Practice:

Elimination:

<https://cdn.kutasoftware.com/Worksheets/Alg1/Systems%20of%20Equations%20Elimination.pdf>

Substitution:

<https://cdn.kutasoftware.com/Worksheets/Alg1/Systems%20of%20Equations%20Substitution.pdf>

### **Week 6: System of Equations: Word Problems**

- writing a system of equations from a word problem + solving

To Practice:

Work Problems Worksheet:

<https://cdn.kutasoftware.com/Worksheets/Alg1/Systems%20of%20Equations%20Word%20Problems.pdf>

### **Week 7: Systems of Inequalities**

- testing solutions in a system of inequalities
- graphing inequalities
- graphing systems of inequalities

To Practice:

Testing Solutions Worksheet:

<https://www.khanacademy.org/math/algebra/x2f8bb11595b61c86:inequalities-systems-graphs/x2f8bb11595b61c86:checking-solutions-of-two-variable-inequalities/e/checking-solutions-to-systems-of-inequalities>

Graphing Inequalities Worksheet:

<https://cdn.kutasoftware.com/Worksheets/Alg1/Graphing%20Linear%20Inequalities.pdf>

Graphing Systems of Inequalities Worksheet:

<https://cdn.kutasoftware.com/Worksheets/Alg1/Systems%20of%20Inequalities.pdf>

### **Week 8: Systems of Inequalities Word Problems**

- writing a system of inequalities from a word problem + solving

To Practice:

Systems of Inequalities Word Problems Worksheet:

[https://8theastviewmath.weebly.com/uploads/1/0/6/4/106446071/graphing\\_systems\\_of\\_inequalities\\_word\\_problems\\_ws.pdf](https://8theastviewmath.weebly.com/uploads/1/0/6/4/106446071/graphing_systems_of_inequalities_word_problems_ws.pdf)

### **Week 9: Intro to Functions**

- What is a function? What is considered a function?
- identifying functions

To Practice:

Identifying Functions Worksheet:

<https://www.tutoringhour.com/files/functions/identifying-functions-1.pdf>

<https://www.mathworksheets4kids.com/function/identifying/ordered-pairs-1.pdf>

<https://www.mathworksheets4kids.com/function/identifying/table-1.pdf>

<https://www.mathworksheets4kids.com/function/identifying/mapping-1.pdf>

### **Week 10: Inputs vs. Outputs**

- evaluating functions from a graph
- evaluating function expressions
- inputs vs. outputs

To Practice:

Function Notation Worksheet:

<https://www.polk.k12.ga.us/userfiles/928/Classes/178734/Evaluating%20Functions%20from%20a%20Graph.pdf>

<https://lindblomeagles.enschool.org/ourpages/auto/2014/8/28/57520255/Wk17Dy2%20-%20Function%20Notation.pdf>

### **Week 11: Domain and Range**

- determining the domain and range of a function
- domain and range word problems

To Practice:

Domain and Range Worksheets:

<https://www.tutoringhour.com/files/functions/domain-and-range-1.pdf>

<https://www.mathworksheets4kids.com/function/domain-range/infinite-graph-1.pdf>

Domain and Range Word Problems:

<https://www.khanacademy.org/math/algebra/x2f8bb11595b61c86:functions/x2f8bb11595b61c86:determining-the-domain-of-a-function/e/interpreting-domain>

### **Week 12: Review + Catch-Up**

## Resources:

- <https://www.mathworksheets4kids.com/linear-equation/slope-intercept/equation-level-1-1.pdf>
- <https://cdn.kutasoftware.com/Worksheets/Alg1/Graphing%20Lines%20SI.pdf>
- <https://www.mathworksheets4kids.com/linear-equation/slope-intercept/equation-1.pdf>
- <https://www.khanacademy.org/math/algebra/x2f8bb11595b61c86:forms-of-linear-equations/x2f8bb11595b61c86:writing-slope-intercept-equations/e/slope-intercept-equation-from-graph>
- <https://cdn.kutasoftware.com/Worksheets/Alg1/Writing%20Linear%20Equations.pdf>
- <https://www.khanacademy.org/math/algebra/x2f8bb11595b61c86:systems-of-equations/x2f8bb11595b61c86:introduction-to-systems-of-equations/e/verifying-solutions-to-systems-of-equations>
- <https://cdn.kutasoftware.com/Worksheets/Alg1/Systems%20of%20Equations%20Graphing.pdf>
- <https://cdn.kutasoftware.com/Worksheets/Alg1/Systems%20of%20Equations%20Elimination.pdf>
- <https://cdn.kutasoftware.com/Worksheets/Alg1/Systems%20of%20Equations%20Substitution.pdf>
- <https://cdn.kutasoftware.com/Worksheets/Alg1/Systems%20of%20Equations%20Word%20Problems.pdf>
- <https://www.khanacademy.org/math/algebra/x2f8bb11595b61c86:inequalities-systems-graphs/x2f8bb11595b61c86:checking-solutions-of-two-variable-inequalities/e/checking-solutions-to-systems-of-inequalities>
- <https://cdn.kutasoftware.com/Worksheets/Alg1/Graphing%20Linear%20Inequalities.pdf>
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- <https://www.tutoringhour.com/files/functions/identifying-functions-1.pdf>
- <https://www.mathworksheets4kids.com/function/identifying/ordered-pairs-1.pdf>
- <https://www.mathworksheets4kids.com/function/identifying/table-1.pdf>
- <https://www.mathworksheets4kids.com/function/identifying/mapping-1>
- <https://www.polk.k12.ga.us/userfiles/928/Classes/178734/Evaluating%20Functions%20from%20a%20Graph.pdf>
- <https://lindblomeagles.enschool.org/ourpages/auto/2014/8/28/57520255/Wk17Dy2%20-%20Function%20Notation.pdf>
- <https://www.tutoringhour.com/files/functions/domain-and-range-1.pdf>
- <https://www.mathworksheets4kids.com/function/domain-range/infinite-graph-1.pdf>
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