## Functions, Expressions, \& Equations: Linear Functions

## This Is Your Homepage

## Learn Zillion Video Lessons

KHAN Academy Video Lessons

## Miscellaneous

 Video Lessons
## IXL Practice

KHAN Academy Practice
Miscellaneous
Practice Sites
Songs and Videos

## Learn Zillion Video Lessons

## For 8.F.B. $4 \quad$ 8.EE.B. $5-8 . E E . B .6$

## Learn Zillion Video Lessons 8.F.B. 4 <br> Use Functions to Model Relationships Between Quantities <br> Learn Zillion Video Lessons <br> 8.EE.B. 5

Understand the Connections Between Proportional Relationships, Lines, \& Linear Equations

Learn Zillion Video Lessons
8.EE.B. 6

Understand the Connections Between Proportional Relationships, Lines, \& Linear Equations

## Learn Zillion

 8.F.B. 4
## Use Functions to Model Relationships Between Quantities

Compare distance-time
graphs with distance-time

Construct Linear Functions from a Graph

Determining the $y$-Intercept

Create Equation, Table, and Graph from a Situation

Construct Linear Functions from Tables

Determining the Constant Rate of Change

## Interpret Direction

> | Interpret Linear |
| :--- |
| in Relationships |

## Construct a Linear <br> Determine Rate of Change

 FunctionInterpreting Slope and y-intercept in Context
in Linear Relationships

Determine Initial Value in a Linear Relationship

Construct a Function by Solving for Unknown Information

# Learn zillion 8.EE.B. 5 

Understand the Connections Between Proportional Relationships, Lines, and Linear Equations

Display All Possibilities in a Proportional Relationship by Graphing

Find a Unit Rate Using a Graph

Find a Fractional Unit Rate Using a Graph
Understand Proportional Relationships by Relating Graphs and Equations

Compare Proportional Relationships

## Learn Zillion 8.EE.B. 6

## Make Lines from Right Triangles

## Describe <br> Positive and Negative Slopes

## Find Coordinates of Points on a Straight Line <br> Derive $y=m x$ Using Similar Triangles

Describe a Line with a Unique Slope

Derive $y=m x+b$ Using Similar Triangles
Find the Slope of a Line on the Coordinate Plane

## KHAN Academy Video Lessons

For

## Equation Review 8.F.B. 4 <br> 8.F.B. 5

Equation Review
8.F.B. 4

Use Functions to Model Relationships Between Quantities
8.EE.B. 5

Understand the Connections Between Proportional Relationships, Lines, and Linear Equations
8.EE.B. 6

Understand the Connections Between
Proportional Relationships, Lines, and Linear Equations

## KHAN Academy Video Lessons

 For Equation ReviewSimple Equations of the Form $a x=b$

Basic Algebraic Logic

Solving
One-Step Equations
Why We Do the Same
Thing to Both Sides
Two-Step Equations
Solving
One-Step Equations -2
Simple Equations:
Examples Solving a
Variety of Forms

## Equations 2

Two-Step Equations

## KHAN Academy Video Lessons

 For 8.F.B. 4
## Find Slope of a Line

Slope and y-intercept Intuition

Find Slope of a Line 2
Graphical Slope of a Line
Slope of a Line 3
Slope and Rate of Change
Slope Example

## KHAN Academy Video Lessons For 8.EE.B. 5

## Comparing Proportional Relationships Exercise 2

Representing and Comparing Rates

Graphing Proportional Relationships Example

Graphing Proportional RelationshipsExample 2

Graphing Proportional RelationshipsExample 3

## KHAN Academy Video Lessons For 8.EE.B. 6

Similar Triangles to Prove that the Slope is Constant for a Line

Slope and Triangle Similarity 1

Slope and Triangle Similarity 2

Slope and Triangle Similarity 3

Slope and Triangle Similarity 4

## KHAN Academy Practice

| Equation Review: <br> One-Step Equations with Multiplication | 8.F.B. 4 <br> Graphing Linear Equations |
| :---: | :---: |
| Equation Review: One-Step Equations | 8.EE.B. 5 <br> Rates and Proportional Relationships |
| Equation Review: Two-Step Equations | 8.EE.B. 5 <br> Graphing Proportional Relationships |
| 8.F.B. 4 <br> Identifying Slope of a Line | 8.EE.B. 6 <br> Slope and Triangle Similarity |
| 8.F.B. 4 <br> Line Graph Intuition |  |

## Direct Variation by Shmoop

Inverse Variation by Shmoop

Direct Variation and Inverse Variation

Slope-Intercept Form By Shmoop

Linear Equations in Point-Slope Form by Shmoop


Art of Problem Solving: Slope-Intercept Form

Art of Problem Solving: Introducing Slope

Art of Problem Solving: Point-Slope Form

Math Dude:
(Unit 3-2)
Slope and Direct Variation
MathDude:
(Unit 3-1)
Slope of a Line
MathDude:
(Unit 3-1-3)
Slope-Intercept Form

## IXL Practice

## 8.F.B. 4 <br> Use Functions to Model Relationships Between Quantities

## 8.EE.B. 5

Understand the Connections Between Proportional Relationships, Lines, and Linear Equations
8.EE.B. 6

Understand the Connections Between Proportional Relationships, Lines, and Linear Equations

## IXL Practice

## 8.F.B. 4

Rate of Change
Proportional Relationships:
Word Problems

Constant Rate of Change
Write a Rule for a Function Table

Find the Constant of Variation: Graphs

## Linear Function Word Problems

Find the Constant of Variation: Word Problems

Find the Slope of a Graph

Write an Equation for a Proportional Relationship

## IXL Practice

## 8.EE.B. 5

## Unit Rates

## Solve Proportions: Word Problems

Find the Constant of Variation: Graphs

Do the Ratios Form a Proportion: Word Problems?

Solve Proportions
Graph a
Proportional Relationship
Proportional Relationships: Word Problems

## IXL Practice

8.EE.B.6

Write an Equation for a Proportional Relationship

Graph a Line
from an Equation

Find the Slope of a Graph

Find Slope from Two Points

Find Slope from an Equation

Graph a Line Using Slope

## Miscellaneous Practice

Word Problems on One Line

Writing Equations of Lines

Matching Lines with Equations

Linear Functions as Models
Graphing a Linear Function Given a Point and Its Slope

Graphing Linear Equations

## Slope Point Word Problem

Finding the Equations of Lines in Standard Form

Point-Slope Form
Graphing Lines Given Slope and $Y$-Intercept

Slope and $y$-intercept

## Interactive Games

Ship Blaster: Linear Function Game

Rags to Riches:
Parallel \& Perpendicular Lines

Line Gem 1

Hoop Shoot: Slope-Intercept Game

Algebra vs. The Cockroaches

## Songs and Videos

The Slope Song

## Colin Dodds - Slope (Math Song)

Minor Notes - Slopes
Rise Up Run Out
Graph Shop-
Slope Intercept Rap

$$
y=M X+B
$$

Slope Formula Style
Real Life Applications of Slope
Real Life Math -
Snowboarding on Slopes - Algebra
Slope of the Line
Slope

