

TOPIC 5 Overview

TOPIC FOCUS: In this topic students will focus on expanding their knowledge of solving equations to solving systems of linear equations. Students will need to identify if a system of equations has one, none, or infinitely many solutions using the slope and y-intercept. They will use inspection, graphing, and substitution to solve the system of equations.

STANDARDS: The Major focus standard for this topic is **8.EE.C.8a, 8.EE.C.8b, 8.EE.C.8c** *Analyze and solve pairs of simultaneous linear equations.*

ASSESSMENT: Topic 5 is the only topic to provide explicit instruction on these standards, so the information from the End of Topic Assessment should be used Summatively.

REQUIRED ASSESSMENT

Resources for Formative and Summative Assessment from enVision Mathematics

Pre-Assessment - Topic Readiness Assessment or Review What you Know (unit development recommendation)

Lesson Quizzes - To be used formatively to guide Step 3 Differentiation

Topic 5 Mid-Topic Checkpoint and/or Mid-Topic Performance Task (TE pg 279-280) Administer as a formative assessment to determine student progress.

Topic 5 End of Topic Assessment (TE pg 301A) or Topic 5 Performance Task (TE pg 301B) Administer as a summative assessment (unit development recommendation).

Notes: 5-4 is a 9th grade standard and will be covered next year.

STANDARDS The standards are clustered with Learning Intentions and Success Criteria (LI/SC) and are identified to provide coherence in teaching and learning. Students should spend the large majority of their time on the major work of the grade. Major clusters (□) address the most important standards at that grade level. Supporting clusters (△) are strongly connected to the content of the major clusters, and additional clusters (Ⓢ) address other content to be taught at that grade level.	Topic Learning Intentions LI Identified on Math Background: Focus pg	Solution, and Topic Success Criteria SC identified on Topic Planner - math objectives
8.EE.C.8a Understand that solutions to a system of two linear equations in two variables correspond to points of intersection of their graphs because points of intersection satisfy both equations simultaneously. 8.EE.C.8b Solve systems of two linear equations in two variables algebraically (including but not limited to using substitution and elimination strategies), and estimate solutions by graphing the equations; solve simple cases by inspection. 8.EE.C.8c Solve real-world and mathematical problems leading to two linear equations in two variables.	5-1: We are learning that a system of linear equations can have no solution, one solution, or infinitely many solutions. The number of solutions is based on the number of intersection points of the lines in the system. The number of solutions can be determined by comparing the slopes and y-intercepts of the equations.	TBD

	5-2: We are learning that systems of equations can have zero solutions, one solution, or infinitely many solutions. The solution to a linear system is the point of points at which the lines intersect. 5-3: We are learning that substitution is a useful method for solving a system of linear equations. It is accomplished by rewriting an equation for one variable in terms of the other, and substituting that expression into the other equation then solving. 5-4: We are learning that elimination can be used to solve a system of linear equations by adding or subtracting the equations to eliminate one variable. The resulting equation can be solved for the	
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	remaining variable or used to determine if there is no solution or an infinite number of solutions. 3-Act Math: We are learning that many real-world problems can be represented with a mathematical model, but that model may not represent a real-world situation exactly.	
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