

# enVision Algebra 1 Day by Day (Semester 1) 2023–2024

Day	Date	Section	Topic	Standard	Notes/Enrichment
<div> <p><b>Higher Order Questions:</b></p> <ol style="list-style-type: none"> <li>How can you determine the result of operations with rational and irrational numbers?</li> <li>How can we apply the properties of equality to solve real-world problems?</li> <li>What characteristics do equations have with infinitely many solutions or no solutions?</li> <li>How can you use properties of equality to highlight variables of interest? When would this be useful?</li> <li>How can we apply the properties of inequalities to solve one variable inequalities?</li> <li>When would real-world applications and inequalities as opposed to equation?</li> </ol> </div> <div> <p><b>Vocabulary:</b> rational, irrational, sets, subsets, elements, expression, equation, literal equation, inequality, compound inequality</p> </div> <div> <p><b>Skills Previously Taught:</b></p> <ul style="list-style-type: none"> <li>Classifying Numbers as Rational and Irrational</li> <li>Ordering Rational and Irrational Numbers from least to greatest</li> <li>Solving Equations with Variables on One Side</li> <li>Solving Equations with Variables on Both Sides</li> <li>Equations with No Solution and Infinitely Many Solutions</li> </ul> </div>					
1	A: 8/16 B: 8/17		Welcome, expectations, pre-test review, intro to solving equations		Possible FAL – <a href="#">Interpreting Algebra Expressions</a>
2	A: 8/18 B: 8/21	1-1	Operations on Real Numbers	N.3 (+)	<a href="#">Mystery Number Activity</a>
3	A: 8/22 B: 8/23	1-2	Solving Linear Equations	A.1, A.12, A.16, A.18, N.4-N.6 (continue all year)	<a href="#">Mix and Match Equations</a> Possible FAL – <a href="#">Solving Linear Equations in One Variable</a>

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4	A: 8/24 B: 8/25	1-3	Solving Equations with Variables on Two Sides	A.1, A.12, A.16, A.18	Possible FAL – <a href="#">Solving Linear Equations in Two Variables</a>
5	A: 8/28 B: 8/29	1-2/1-3	Solving Equations all together (omit if behind)		<a href="#">DESMOS solving equations</a>
6	A: 8/30 B: 8/31	1-4	Literal Equations and Formulas	A.15, A.18	<a href="#">1.4 Doodle Notes</a>
7	A: 9/1 B: 9/5	Flex Day or MAP Test (if needed)			
8	A: 9/6 B: 9/7	1-5	3 Act Math Task Solving One Variable Inequalities	A.12, A.18	3 ACT Math Task (one per unit) <a href="#">1.5 Compound Inequalities 2-1-0</a>
9	A: 9/8 B: 9/11	1-6	Compound Inequalities	A.12, A.18	
10	A: 9/12 B: 9/13		Topic #1 Review		
11	A: 9/14 B: 9/15	Topic 1 Exam (Solving Equations and Inequalities)			

<b>Higher Order Questions:</b> <ol style="list-style-type: none"> <li>Determine the slope given a real world situation.</li> <li>Can you find real world x-intercept given slope-intercept form?</li> </ol>	<b>Vocabulary:</b> slope, y-intercept, x-intercept, slope-intercept form,	<b>Skills Previously Taught:</b> <ul style="list-style-type: none"> <li>Slope</li> <li>Slope Intercept Form</li> </ul>
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3. Explain the steps to transform from point slope to slope intercept form.
4. Explain how to find intercepts using standard form.

point-slope form,  
standard form, parallel  
and perpendicular lines

- y-intercept
- parallel, perpendicular and skew lines
- Solution and Infinitely Many Solutions

12	A: 9/18 B: 9/19	2-0	Slope (Supplement) <b>ADD AVERAGE RATE OF CHANGE</b>	F.3, SP.7	STEM (one per semester) Solar Panels Suggested <a href="#">2.0 Slope Doodle Notes</a> <b>Average Rate of Change</b>
13	A: 9/20 B: 9/21	2-1	Slope-intercept form, y-intercept	F.12, A.13 (and continue all year)	
14	A: 9/22 B: 9/25	2-2	Point Slope Form	F.12	
15	A: 9/26 B: 9/27	2-3	Standard Form of a Linear Equation	F.12, F.14	
16	A: 9/28 B: 9/29	2-4	Parallel and Perpendicular Lines	F.12, G.22	3 ACT Math Task (one per semester)
17	A: 10/9 B: 10/10		Topic #2 Review/ Review for Common Assessment #1		<a href="#">Line Bump</a>
18	A: 10/11 B: 10/12	<b>Topic #2 Exam (Linear Equations)</b>			
19	A: 10/13 B: 10/16	<b>ADAM #1 (Window 10/13-10/27)</b>			

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## Higher Order Questions:

1. Looking at a graph, can you explain in real-world context what is happening?
2. Explain what makes a relation a function.
3. How do arithmetic sequence relate to linear functions?
4. How can you use a scatter plot to describe the relationship between two data sets?

**Vocabulary:** domain, function, range, relation, function notation, arithmetic sequence, common difference, term value, scatter plot, line of best fit, correlation, correlation coefficient

## Skills Previously Taught:

- Sketch Functions from Verbal Descriptions
- Understanding Relations and Functions
- Comparing Linear and Non-Linear Models
- Analyze Linear Associations
- Using Linear Models to Make Predictions

20	A: 10/17 B: 10/18		FAL		Recommended FAL (one per semester) <a href="#">FAL Time Distance Graphs</a>
21	A: 10/19 B: 10/20	3-1	Relations and Functions	F.1 (and continue all year)	STEM (one per semester) <a href="http://www.graphingstories.com/">http://www.graphingstories.com/</a>
22	A: 10/23 B: 10/24	3-2	Function Notation and Linear Functions	A.23, F.1b, F.6b, F.11, F.12	3 ACT Math Task (one per semester)
23	A: 10/25 B: 10/26	3-4	Arithmetic Sequences	F.2, F.6a, F.7, F.12	
24	A: 10/27 B: 10/30	3-5/3-6	Scatter Plots and Lines of Best Fit/ Linear Regressions	SP.6, SP.7, SP. 8, F.11	<a href="#">3.5/3.6 Doodle Notes</a>
25	A: 10/31 B: 11/1		Topic #3 Review		

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26 A: 11/2  
B: 11/3 Topic #3 Exam (Linear Functions)

## TOPIC 4: Systems of Linear Equations and Inequalities

### Higher Order Questions:

1. How does a point of intersection relate to the solution of systems of equations?
2. Use the substitution method to solve systems and determine if the solutions give viable outcomes for given situations.
3. Apply the elimination method to real world equation in order to determine specific results.
4. How does the graph of a linear inequality in two variables help you identify the solutions of the inequality?

**Vocabulary:** system of equations, graphing method, substitution method, elimination, linear inequalities, solution point

### Skills Previously Taught:

- Solve Systems by Graphing
- Solve Systems by Substitution
- Solve Systems by Elimination

27	A: 11/6 B: 11/8	4-1	Solving Systems by Graphing	A.13 (throughout unit), A.14, A.20, A.24	STEM (one per semester)
28	A: 11/9 B: 11/10	4-2	Solving Systems by Substitution	A.14, A.20	
29	A: 11/13 B: 11/14	4-3	Solving Systems by Elimination	A.14, A.20	
30	A: 11/15	4-4	Linear Inequalities in Two Variables	A.14, A.25	3 ACT Math Task (one per unit)

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	<b>B:</b> 11/16				
<b>31</b>	<b>A:</b> 11/17 <b>B:</b> 11/20	4-5	System of Linear Inequalities (With and without technology)	A.14, A.25	*4.4 and 4.5 could be combined in one day <a href="#">4.4/4.5 Doodle Notes</a>
<b>32</b>	<b>A:</b> 11/21 <b>B:</b> 11/27		Topic #4 Review/ Review for Common Assessment #2		
<b>33</b>	<b>A:</b> 11/28 <b>B:</b> 11/29	<b>Topic #4 Exam (Systems of Linear Equations and Inequalities)</b>			
<b>34</b>	<b>A:</b> 11/30 <b>B:</b> 12/1	<b>ADAM #2 (Window 12/4-12/19)</b>			

## TOPIC 5: ABSOLUTE VALUE FUNCTIONS

<b>Higher Order Questions:</b> <ol style="list-style-type: none"> <li>1. Model the solution of absolute value equation and inequalities using a number line.</li> <li>2. What are the key features of the graph of the absolute value functions?</li> <li>3. How do the different parts of function affect the graph?</li> </ol>		<b>Vocabulary:</b> absolute value equations, absolute value inequalities, absolute value functions, piecewise functions	<b>Skills Previously Taught:</b> <ul style="list-style-type: none"> <li>• Absolute value of a number</li> </ul>
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<b>35</b>	<b>A:</b> 12/4 <b>B:</b> 12/5	1-7	Absolute Value Equations and <i>Topic 1 Final Review</i>	A.16	If you prefer to teach the final review on one day then each 1-7 altogether, then 5.1/5.4, then a day of final review.
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36	A: 12/6 B: 12/7	1-7	Absolute Value Inequalities and <i>Topic 2 Final Review</i>	A.16	
	A: 12/8 B: 12/11			5.1/5.4	
38	A: 12/12 B: 12/13	FLEX DAY			
39	A: 12/14 B: 12/15	Final Exam			
40	A: 12/18 B: 12/19	Final Exam			

**\*Bold Section Number – enduring skill to be reinforced throughout the course**

**ADAM #1 (WINDOW 10/13-10/27)**

**ADAM #2 (WINDOW 12/4-12/19)**

**Quizzes are at teacher discretion, some schools are giving lesson quizzes instead of unit quizzes**

**FAL – 1 per semester**

**STEM Project – 1 per semester**

**3 ACT Math Task – 1 per unit**