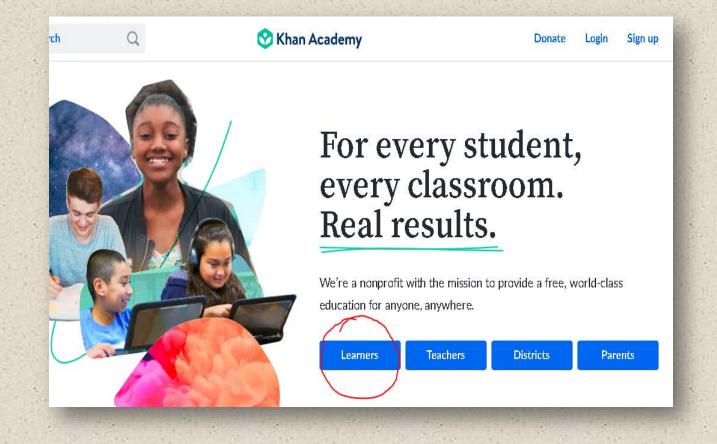


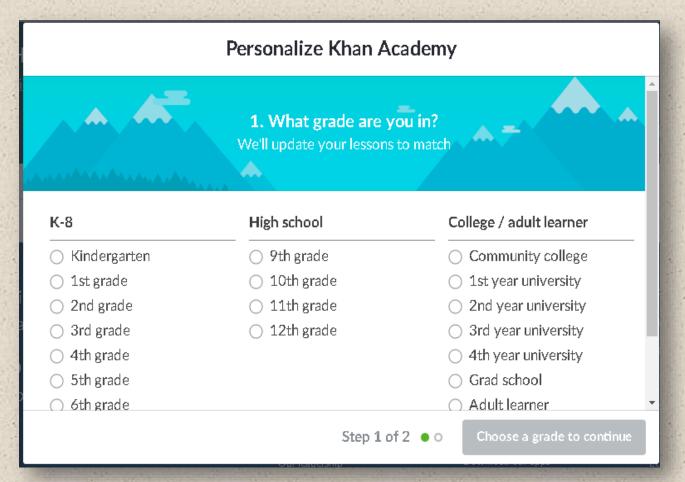
Secondary Summer Math Activities

The importance of having the right tool for the job cannot be overstated. With the right preparation, even seemingly difficult tasks become much easier. The goal of the Secondary Summer Math Activities list is to equip all our students with the right tools and preparation to be at their best this fall when classes resume. The steps below will guide you on how to take full advantage of the activities listed.

 Start by creating a Learner account at <u>khanacademy.org</u>. This will be the primary resource used this summer. If you already have an account, there is no need to create another. Children under 13 will need permission from a parent to create an account, so parents please assist as needed.



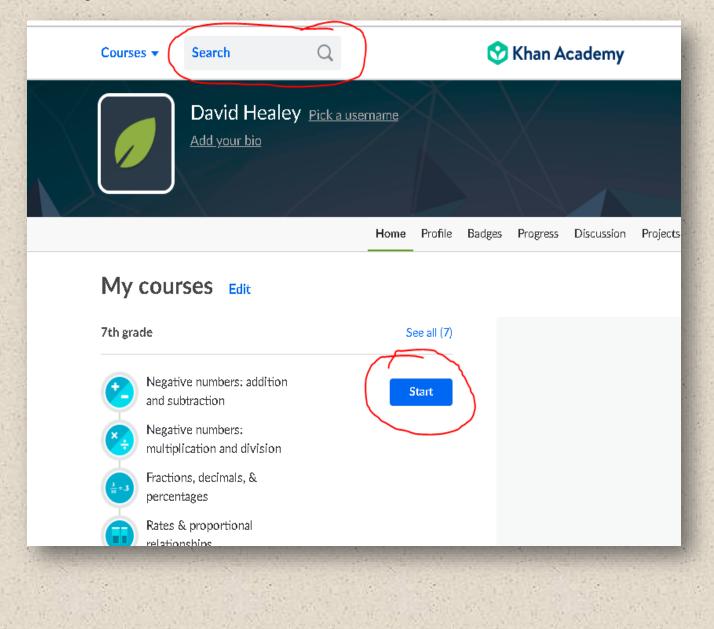
2. Select the grade level or course that the student will be entering this fall. This will help to guide students through mastery of concepts that will be covered all year long! In addition to your math course, feel free to select as many courses as you would like!



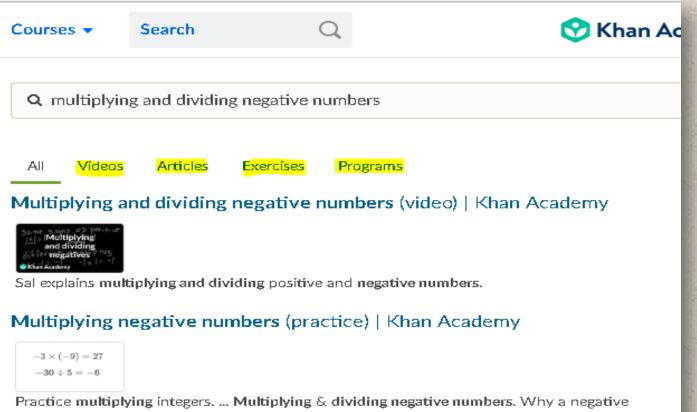
3. From your Learner Dashboard you can explore all of the content you have selected, edit your profile, and monitor your progress, as well as add new content and explore new materials as you wish! This is also where you can search for the exercises listed under the "Khan Academy Exercises" section in the table below.

Courses •	Search Q			0	Khan A	cademy			Donate	David Healey	
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		Home	Profile	Badges	Progress	Discussion	Projects	Coaches			
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7th grade		5	See all (7)								
	egative numbers: addition Id subtraction		Start								
	egative numbers: ultiplication and division										
Fractions, decimals, & percentages						Add another cou			urse		
	ates & proportional lationships										

4. The "Start" button will allow you to jump right in to the content and begin learning. This is a great opportunity to explore concepts that students will encounter in the next school year and have some fun practicing and challenging themselves to see what they can do! The search bar at the top is where students can type in the names of the exercises listed in the table when being more intentional with their practice.



5. After typing in the name of an activity from the table you will see several options of the exercises related to the topic. You can watch a video tutorial, practice online, or view any available articles relating to that topic to help deepen your understanding and mastery of the ideas presented. The exercises in the table were specifically chosen as they are key foundational skills and pre-requisite skills that students will need in the beginning of the school year to avoid confusion and be able to focus on learning new content rather than struggling with skills they may have fallen behind on.



times a negative makes sense \cdot Why a negative times a negative is a ... –

Dividing positive and negative numbers (video) | Khan Academy



Discover the basics of dividing with negative numbers. ... Multiplying positive & negative numbers ... if u divide or multiply negative numbers 2 times like this :

6. As you begin completing exercises, you can track your hard work by navigating to the "Progress" tab in your Learner Dashboard. From here, you can find a list of the skills you've practiced. By adjusting the date range and Mission, you can print off all of the skills you have worked on to submit this fall to participate in your school's summer practice incentive programs. Keep in mind that you may need to change mission to view some of the concepts you may have practiced.

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	Home	Profile	Badges	Progress	Discussion	Projects	Coaches			
Stills Videos Activity Mission: 8th grade V Total 8th grade progress	Focus 0 skills mastered 0 skills level two 1 skill level one							Activity fr	om: Last 7 day	/5 •
D 70 progress	0 skills practiced 124 skills not sta									
Activity from:Last 7 days								🗹 Only sh	iow attempted.	skills
- MISSION FOUNDAT	IONS									
Skill Multiplying negative nu	imbers							Level Level One	Questions 4	☑1

7. Have fun practicing throughout the summer and enjoy the new perspective you gain by deepening your understanding of math and how it works in the world around us!

Grade level					
for	First Concept		Khan Academy exercises		
2019-2020	Covered	Pre-requisite Skills			
school year Geometry	Tools of Geometry	 Squaring numbers Simplifying expressions Evaluating expressions Finding absolute value Solving equations 	 Exponents Combining like terms with distribution Combining like terms with negative coefficients Combining like terms with negative coefficients & distribution Evaluating expressions with one variable Evaluating expressions with multiple variables Finding absolute value Absolute value to find distance One-step multiplication & division equations Two-step equations 		
Algebra 8th Grade	Foundations for Algebra	 Factors of numbers Least common multiple Using estimation Simplifying fractions Fractions and decimals Adding and subtracting fractions 	 Equations with parenthesis Solve square-root equations (basic) Identify factors and multiples Least common multiple Greatest common factor Simplifying fractions Equivalent fractions Common fractions and decimals Converting fractions to decimals Add fractions with unlike denominators Subtracting fractions with unlike denominators 		
8 th Grade	Real Numbers	 Convert a rational number to a decimal Add and subtract rational numbers 	 Converting fractions to decimals Adding & subtracting rational numbers Multiplying fractions 		

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			 Multiply fractions (include distributive property) Multiply and divide rational numbers Solve real world problems involving rational numbers Find area and volume of two- and three- dimensional figures 	 Multiplying positive and negative fractions Dividing positive and negative fractions Multiply & divide rational expressions Rational number word problems Area of composite shapes Area of shapes on grids Find missing side length when given area Volume by multiplying area of base times height
	7 th Grade	Rational Number Operations	 Place numbers and their opposites on a number line Interpret statements of inequality as being statements about their position on the number line Understand positive and negative numbers are used to describe quantities having opposite directions (above/below sea level, etc.) Add, subtract, multiply, and divide multi-digit decimals Divide fractions Solve equations and expressions for one variable Understand the 	 Number opposites Number opposites challenge Negative symbol as opposite Plotting inequalities Writing numerical inequalities Interpreting negative numbers Interpreting negative number statements Word problems involving negative numbers Adding & subtracting decimals word problems Divide fractions by whole numbers Equations with variables on both sides Unit rates
	6 th Grade	Use Positive Rational Numbers	 concept of a unit rate Understand place value Read, write, and compare decimals to the thousandths Use place value to round decimals to any place 	 Intro to place value Compare decimal place value Round decimals Multi-digit multiplication Subtract decimals visually Add decimals visually Multi-digit division

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			•	Multiply multi-digit	•	Multiply and divide by
1-1	1. 1. 1.		1	whole numbers	E 1	powers of 10
	No at an a			Add, subtract, multiply,	•	Powers of 10
-	Section 1	10 10 10 10 10		and divide decimals to	•	Add and subtract
		AND THE REAL PROPERTY.		the hundredths	14	fractions challenge
	1		•	Find quotients of up to	•	Multiply fractions and
				four-digit dividends and		whole numbers
	A. 注入书 ()			two-digit divisors	•1	Divide fractions by whole
	11 10 10	1. S. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	•	Understand pattern		numbers
			2	when multiplying by	1	
		South March 1		powers of 10	1.100	
2	1224	17	•	Add and subtract	14	
		Strate Contract		fractions	14 3	my and the state of my
12	and the second	Source and		Multiply fractions by	S. Bala	
				whole numbers	1.200	
1	4. 1. 1. 1. 1.		•	Divide fractions by	1	
			and a	whole numbers		
-	and the second second		10000		1.000	