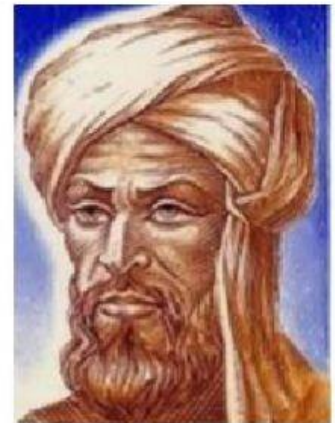


Reading Journal		
Student Name:	Class:	Date:
Title	The Invention of Algebra	
Source	LS4UAE	
Reading Goals		
Read and understand a text about a School and Education.		
Text		
<i>Paragraph 1</i> Did you know that the word 'algebra' comes from the Arabic language? Its original meaning was to complete, or to bring broken parts together. This is because the man who many call the inventor of modern algebra spoke Arabic. His name was Muhammad ibn Musa al-Khwarizmi. He lived many hundreds of years ago, between the years 750 and 850, and studied and worked in Baghdad at a place called the House of Wisdom. <i>Paragraph 2</i> Although a Greek mathematician, Diophantus, was the first to work with basic algebraic principles, Muhammad ibn Musa al-Khwarizmi developed important concepts that define modern algebra. His book, <i>The Compendious Book on Calculation by Completion and Balancing</i>, was the first to explain ways to solve for positive roots of first and second degree polynomial equations. He also created a new algebraic method, called reduction. <i>Paragraph 3</i> Muhammad ibn Musa al-Khwarizmi wrote out equations using words, rather than symbols and numbers, and wrote detailed descriptions of solutions to the problems that he put forth. His work allowed other mathematicians to develop algebra further. Abu Kamil Shuja used Muhammad ibn Musa al-Khwarizmi's ideas to help him write a book about algebra that included geometrical proofs and illustrations. Muhammad ibn Musa al-Khwarizmi's work also provided the mathematicians Abu al-Jud and Omar Khayyam with a starting point to develop several solutions of the cubic equation.		



A drawing of Muhammad ibn Musa al-Khwarizmi

VOCABULARY

algebra: a type of math

basic: simple

concepts: ideas

polynomial: using many numbers

equation: used to express to mathematical phrases that are equal

symbol: a sign used to represent a number or word

Questions <i>Answer each question with at least one complete sentence.</i>		Textual Evidence <i>Write down the words or sentences from the text that helped you answer each question.</i>
Understanding Overall Meaning and Main Ideas	How do we know algebra came from the Arabic language?	
Identifying Specific Information and Inferencing	Who is Diophantus and what did he do?	
Making Connections	How did help other mathematicians?	
Reflection		
How do you use maths skills every day, not just in school?		