

LS4UAE
Term 2 Lesson 1-2
Tier 3

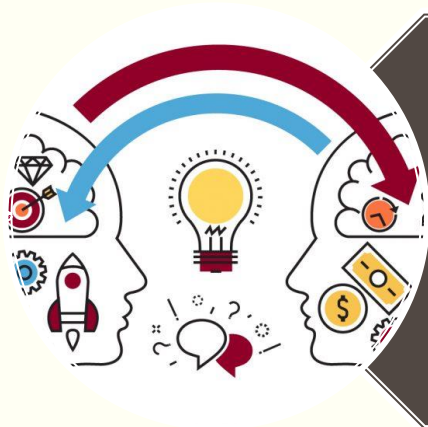
Grade 11A, 12G, 12A



Lesson Objectives: Today we are going to



read and understand
three texts about math.



analyze texts and
answer questions to
show understanding

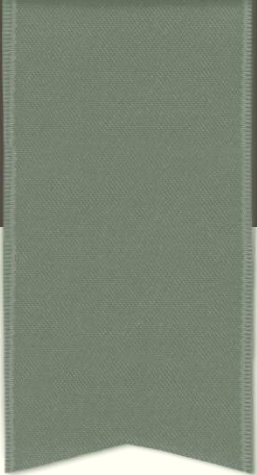
Mentimeter Starter
please duplicate

Starter:



1. Are you interested in math?

2. Do you think it's an important subject? Why or why not?



How do we read for
comprehension?

Strategies for Reading Comprehension Questions



Predict

- Look at the title and the picture
- Make a **Prediction**
- Based on the title and picture, what do you think the text will be about?



- Read the questions **BEFORE** reading the text



Circle

- Circle the key word(s) in the questions.
- Go back in the text and look for the word



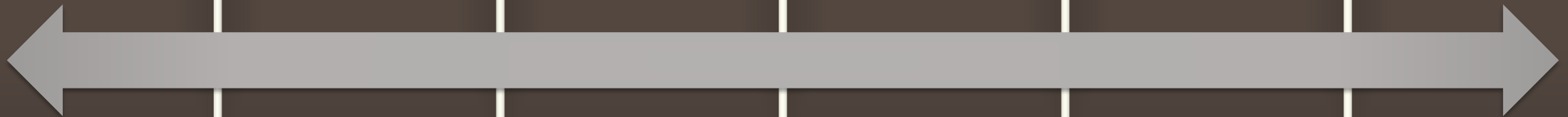
- **Cross out** “silly” answers
- These are the answers that don’t make sense or are clearly incorrect.

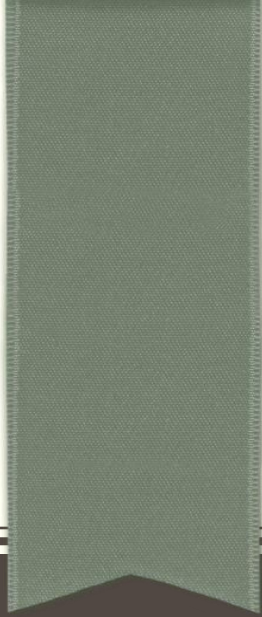


- **Highlight** unfamiliar words while reading the text



- In nonfiction texts, **UNDERLINE** any new or interesting information





READ THE TEXT

Read Text #1: The Invention of Algebra

TEXT 1

The Invention of Algebra

Paragraph 1

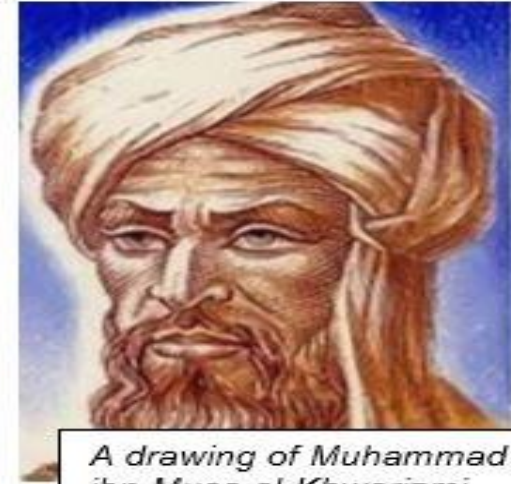
Did you know that the word '**algebra**' comes from the Arabic language? Its original meaning was to complete, or to bring broken parts together. This is because the man who many call the inventor of modern algebra spoke Arabic. His name was Muhammad ibn Musa al-Khwarizmi. He lived many hundreds of years ago, between the years 750 and 850, and studied and worked in Baghdad at a place called the House of Wisdom.

Paragraph 2

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, *The Compendious Book on Calculation by Completion and Balancing*, 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.

Paragraph 3

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 Shu'ibah 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

geometrical: related to geometry

Read the question first:

Who was the 1st person
known to do Algebra?

How do
you know?

Read Text #1: The Invention of Algebra

TEXT 1

The Invention of Algebra

Paragraph 1

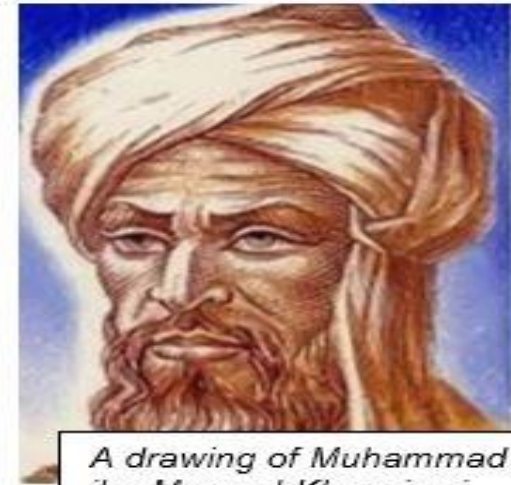
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Discuss:

Who was the 1st person known to do Algebra?

How do you know?



*A drawing of Muhammad
ibn Musa al-Khwarizmi*

Paragraph 1

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.

Read Text 2: A Bad Result

TEXT 2

A Bad Result

"I have some bad news, Dad," Fatima said nervously, holding a paper behind her back.

"Well, Fatima, what is it?" her dad answered, **gesturing** for Fatima to enter his office.

Fatima lowered her eyes and approached her father's desk **reluctantly**. "I am afraid I got a bad mark on my last maths exam," she said nervously, placing the paper on the desk.

"I see," her father said, picking up the paper and **inspecting** it quietly. "Sit down, for a moment, Fatima. Tell me why you are having a difficult time with maths, so that I can help you. Did you study for this exam?"

"I studied a little bit," Fatima answered, lowering herself into the chair in front of her father's desk. "But it was difficult for me. Maths is so boring! And I cannot see the point of it. I don't think I will ever need to use this subject in real life, when school is finished."

Fatima's father looked very stern, and Fatima sat quietly, worried that she had made him feel disappointed.

As the silence **stretched** between them, Fatima's dad began to smile. "That was a very silly thing to say, Fatima, but I am not disappointed in you," he said. "The truth is, I use the math skills I learned at school every day at work, in real life. How could I run a business without them? It is very important for me use those skills so that I can keep track of my **profits** and losses, **monitor** my company's **inventory**, and sign **contracts** with banks. Are you sure you will never need skills like those after you leave school?"

"I had not thought if it that way, Father," Fatima admitted, shrugging her shoulders.

"Well, let's think about it, together," her dad replied, opening his laptop. "Come and sit next to me, and we will research some ways that people use maths in real life."

"That sounds like a good idea," Fatima said. "I am sorry that I got a bad result on my maths exam, but I am happy that you are here to help me."

VOCABULARY

gesturing: using a movement to communicate

reluctantly: used to describe an action that a person does not want to take

inspecting: looking at something closely

stretched: became longer

monitor: to keep track of something

inventory: a list of items

contracts: agreements

Read the question first:

How did Fatima's thinking about math change during the story?

How do you know?

Discuss:

How did Fatima's thinking about math change during the story?

At the beginning she thought she would never need math after school was finished. Then she learned from her father that people use math in their jobs every day.

How do you know?

"I studied a little bit," Fatima answered, lowering herself into the chair in front of her father's desk. "But it was difficult for me. Maths is so boring! And I cannot see the point of it. I don't think I will ever need to use this subject in real life, when school is finished."

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Read the question:

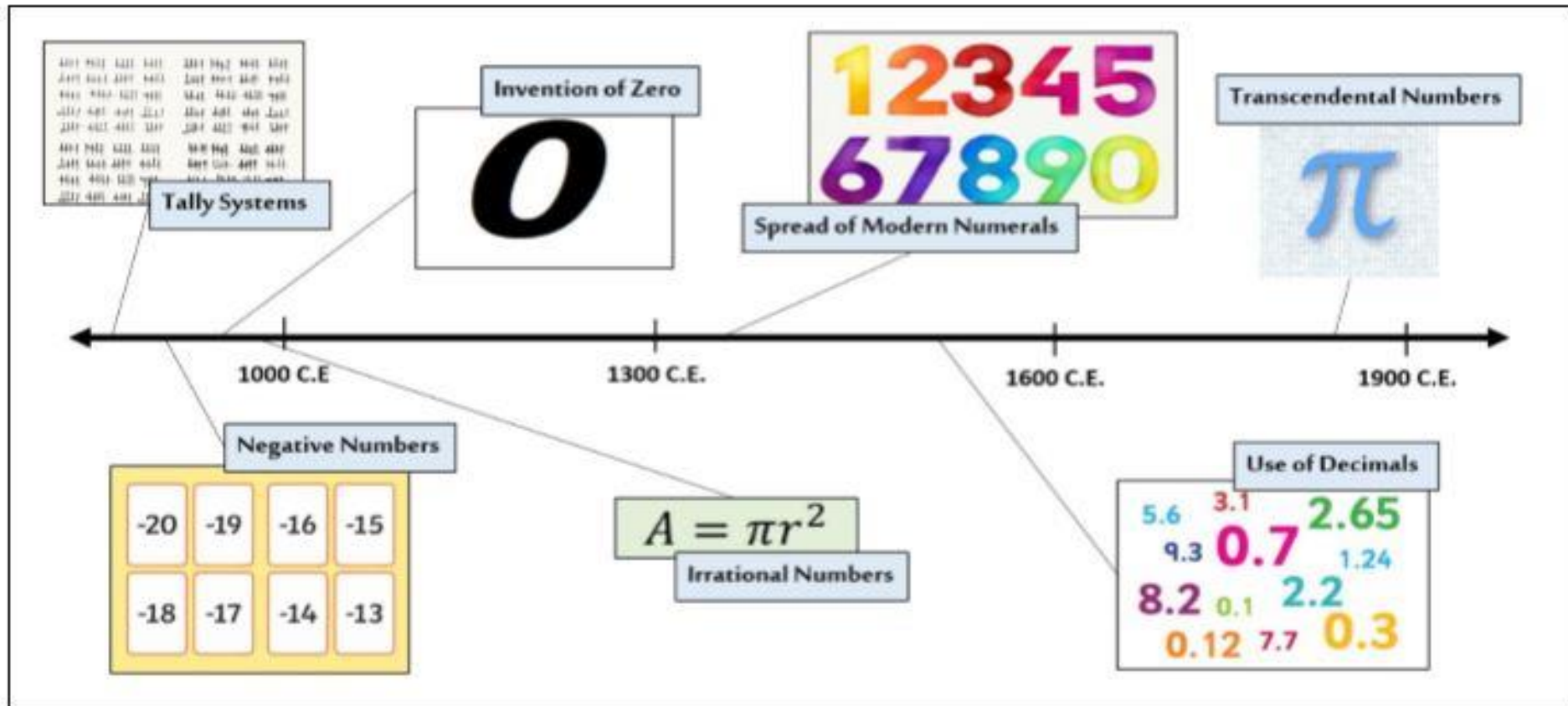
Which type of number is the 1st to appear on the timeline?

How can you tell?

Read Text 3: The History of Numbers

TEXT 3

The History of Numbers

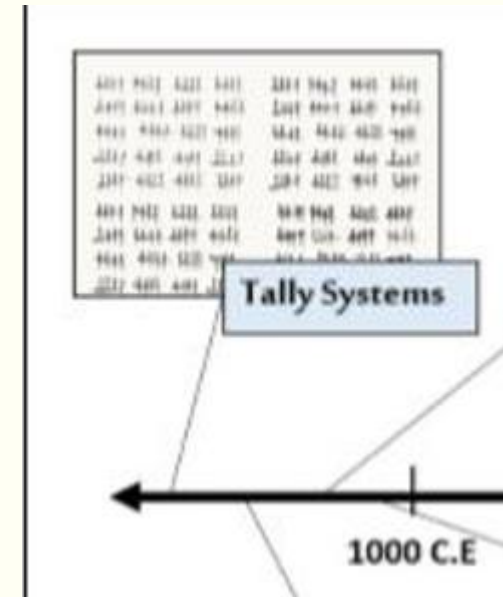
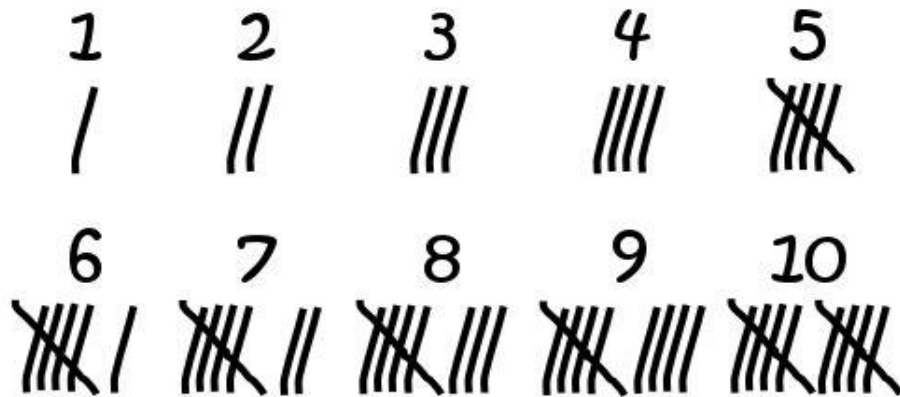


Discuss:

Which type of number is the 1st to appear on the timeline?

How can you tell?

The tally system



It is the 1st entry on the earliest part of the timeline

Discussion:

What strategies did you use to answer these questions?

Predict

- Look at the title and the picture
- Make a **Prediction**
- Based on the title and picture, what do you think the text will be about?

Read the questions BEFORE reading the text

- Read the questions **BEFORE** reading the text

Circle

- Circle the key word(s) in the questions.
- Go back in the text and look for the word

Cross out

- **Cross out** "silly" answers
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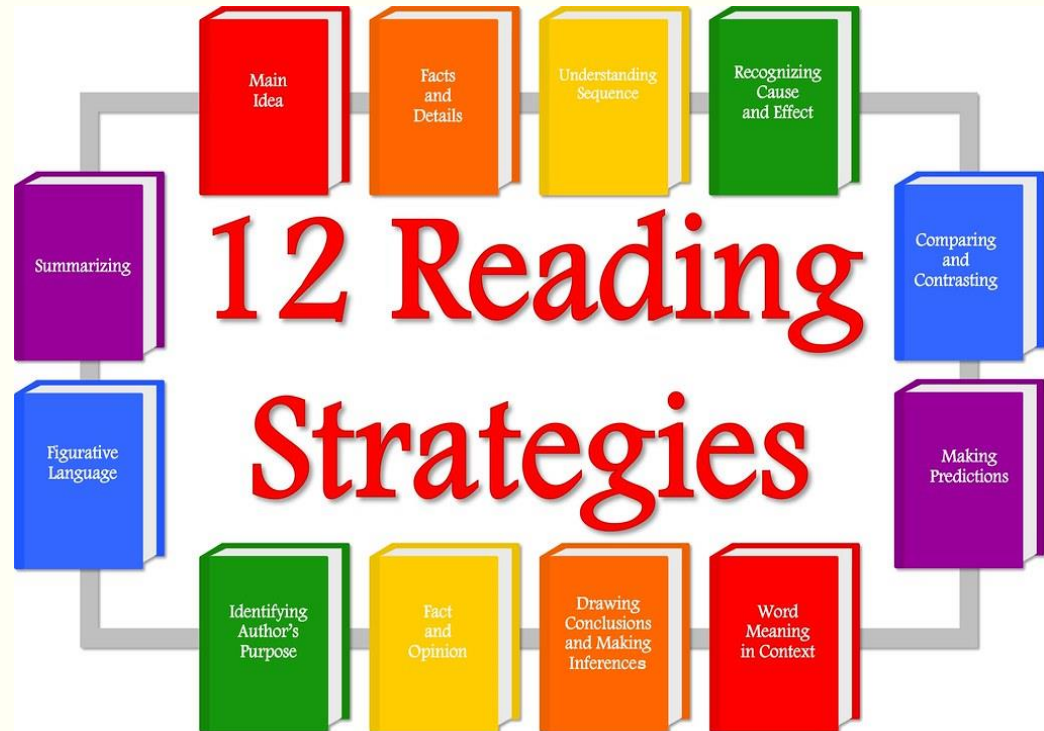
Highlight

- **Highlight** unfamiliar words while reading the text

Underline

- In nonfiction texts, **underline** any new or interesting information

What other strategies could you use?



Independent Practice (Teachers need to duplicate/copy links)

Required

Read the texts
and complete
the questions

- [LS4UAE Reading Comprehension](#)

Practice

Vocabulary & Reading Strategies

- [Text 1 Vocabulary: The Invention of Algebra](#)
- [Text 2 Vocabulary: A Bad Result](#)
- [Reading Strategies Kahoot](#)
- [Annotating Text Flash Cards](#)

Exit Ticket: [Mentimeter](#) (teachers please duplicate)



**EXIT
TICKET**

LS4UAE Term 2 Lesson 1-2 Tier 3

Links to Duplicate

- [Starter activity Mentimeter](#)
- [Quizlet Annotating Text Flashcards](#)
- [Quizlet Vocabulary Text 1: The Invention of Algebra](#)
- [Quizlet Vocabulary Text 2: A Bad Result](#)
- [Reading Strategies Kahoot](#)
- [Independent Practice: LS4UAE Tier 3 Comprehension](#)
- [Exit Ticket](#)

End Notes

Ministry of Education, United Arab Emirates. *Bridge to Success Cycle 3 Coursebook*.
Dubai, United Arab Emirates, UAE MOE, 2017.