

TRƯỜNG ĐẠI HỌC ĐÀ LẠT



GIÁO TRÌNH

TIẾNG ANH 4

(Dành cho sinh viên ngành Toán – Tin)

KHOA NGOẠI NGỮ

2001

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LỜI TỰA

Nhằm đáp ứng kịp thời nhu cầu học Tiếng Anh chuyên ngành của sinh viên Toán – Tin, chúng tôi biên soạn, biên tập một số bài học có liên quan in trong giáo trình này. Vì khả năng có hạn, giáo trình tất không tránh khỏi những sai sót, kính mong nhận được sự góp ý từ phía bạn đọc để lần tái bản sau sẽ tốt hơn.

Tháng 12 – 2001

Khoa Ngoại Ngữ

Trường Đại học Đà Lạt

UNIT 1: MATHEMATICS

Pre-reading:

1. Would you like to do science?
2. Which branch of science do you like?
3. You are studying mathematics, why do you like it?

Mathematics plays an important part of your lives. Today mathematics is of the great use to many sciences, so more and more mathematical books are printed in many languages, especially in English.

Anyone who works with any branch of science or technology needs to be able to talk about numbers and shapes. Notice how following numbers and shapes are said in English.

Numbers:

28% : Twenty-eight per cent.

10.3 : Ten point three

$\frac{4}{9}$: Four ninths (four over nine)

4^2 : Four squared

5^3 : Five cubed

5^4 : Five to the power of four

1.623.457 : One million, six hundred and twenty-three thousand,
four hundred and fifty seven.

$|+2|$: Absolute value of two.

Derivation of $y' = 4x+1$ (y' equals four x plus 1)

Function of $y = 2x^2 + x + 1$ (y equals two x squared plus x plus 1)

+2 : Positive number two

-2 : Negative number two

$\frac{3}{4}$: Three is numerator and four is denominator

$\frac{3}{10}$: Fraction three over ten

$2\frac{3}{10}$: Mixed number of integer two three over ten

$A \times B / (A)(B)$: Parentheses (A)(B)

$A \times B / A.B$: Dots A.B

How we can read the following mathematical formulas in English: $2x + 3y - 2 = \frac{3Z}{4x}$

(Two x plus three y minus 2 equals three Z divided by four x)

Four basic operations of arithmetic are: Addition, subtraction, multiplication, division.

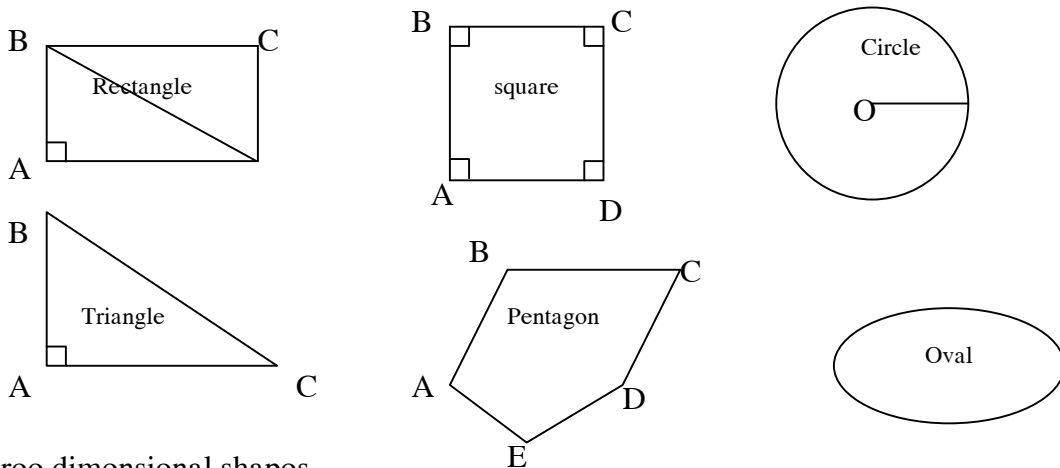
$6 \times 7 = 42$ (six times seven is forty two)

The symbols and their expressions:

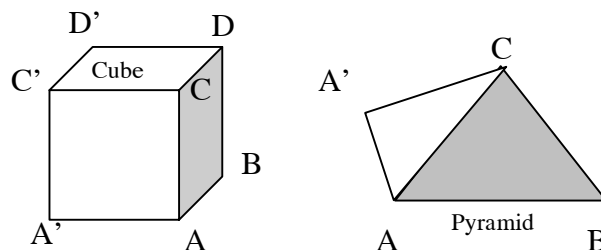
- | | |
|--------------------------------------|-----------------------------------|
| a. + (Plus) | k. % (percent) |
| b. - (minus) | l. > (is more than) |
| c. x (multiplied by) | m. \in (is an element of) |
| d. : (divided by) | n. ∞ (infinity) |
| e. = (is equal to) | o. $\sqrt[3]{\quad}$ (cube root) |
| f. \approx (is equivalent to) | p. $\sqrt{\quad}$ (square root) |
| g. \geq (is more than or equal to) | q. x^2 (x squared) |
| h. \subset (is a subset of) | r. x^3 (x cubed) |
| i. < (is less than) | s. x^4 (x to the power four) |
| j. \leq (is less than or equal to) | t. Π (pi) ∞ (infinity) |

How would the names of the shapes below be read in English?

- Two dimensional shapes:



- Three dimensional shapes



Teaching points:

Active: The simple present

Passive: The simple present

Suffix: - ion

(2)

WORKING WITH VOCABULARY**A. Focus on the reading:**

Arithmetic	Lives
Equals	Multiplication
Formulas	Times
Dimensional	Said
Plays	Who

Choose the best words or phrases above for each sentence, if you need help, look at the reading again (use each word only once)

1. Any one _____ works with any branch of science or technology needs to be able to talk about numbers and shapes.
2. Notice how the following numbers and shapes are _____ in English.
3. Mathematics _____ an important part of our _____
4. Six _____ seven is forty two
5. How we can read the following mathematical _____ in English.
6. Four basic operations of _____ are.
7. Addition, subtraction, _____ division.
8. Two x plus three y minus 2 _____ three z divided by four x.
9. Two _____ shapes are...

B. Focus on new context:

Here is more practice with the new words from the reading choose the best word for each sentence (use each word only once)

Arithmetic	Plays
Dimensional	Multiplication

Equals	Times
Formulas	Said
Lives	Who

1. If we want to say, for example, that in any circle the diameter is twice the radius we can write: d _____ $2R$
2. _____ is one branch of mathematics.
3. Do you know the girl _____ is standing outside the door.
4. It is _____ that English is an international language.
5. It's difficult to read mathematical _____ in English
6. When she was seven, she learnt by heart the _____ table.
7. _____ out of number today he is absent from lesson again.
8. Because we are students our _____ are different from theirs.
9. Some students don't understand the term of _____ analysis.

UNDERSTANDING THE READING

A. Comprehension questions:

*** Answer the questions about the reading:**

1. Why are more and more mathematical books printed in English?
2. Why do scientists and technologists need to be able to talk about numbers and shapes in English?
3. Why does mathematics play an important part of our lives?
4. Can you read: $+2$; -2 in English?
5. Can you do the algebraical maths: If $3a+4$ is greater than 16, then a must be
 - a. greater than 4
 - b. less than 4
 - c. equal to 4
 - d. less than 5
 - e. greater than 3

B. Details: Write T if the sentence is true and F if it is False

1. Mathematics is necessary for us because it helps to research
2. Sciences need mathematics
3. Some branches of science don't need mathematics
4. Two halves of a circle can be called semi-circle
5. A rectangle has four right angles
6. The symbol: \geq can be read: more than or equal to

C. Main idea: Check ✓ the two most important ideas from the reading

1. Some mathematics symbols
2. How to do maths
3. Mathematics and its use in our lives

4. The names of shapes
5. The methods of studying mathematics

D. Writing

Write two following basic properties of numbers in English

1. $2 \times 2 = 4$ or $(-2)(-3) = +6$
2. $(+5)(-10) = -50$ or $(-6)(+8) = -48$

WORD STUDY

A. The passive and active in the simple present tense

1. In passive, we are more interested in the objects of the active sentence.

2. This is because the subjects are not important at the moment or because we don't know who or what is responsible for the event

Form: The passive is formed by putting the verb to be into the same tense as the active verb. The subject of the active verb becomes the "agent" of the passive verb

Example: Active: My grandfather plants this tree

 Passive: This tree is planted by my grandfather

(The example above indicates that the passive of the simple present requires the simple present form)

The simple present is used: - To express a habit

- To express a fact which is always true

Ex: Vegetarians don't eat meat

- To express a fact which is always true for a long time

Ex: We study at Dalat University

Practice: Put the verbs in the correct forms, all the verbs are in simple present, either in the active or in the passive

1. Complex algebraical fraction _____ by the same method used in arithmetic (simplify)
2. The oldest villagers _____ to attend a meeting (invite)
3. They _____ science books in English (print)
4. English _____ in many parts of the world (speak)
5. The doctor _____ on the patient (operate)
6. She _____ from bad headaches (suffer)
7. She _____ in touch with her family by phoning home every Sunday (keep)
8. Wood _____ in water (not sink)
9. Three persons _____ in a car crash (injure)
- 10 Water _____ from the rivers by women and children (bring)
11. That film _____ on TV tonight (not show)

B. Word forms: Nouns

Sometimes verbs and nouns are the same forms; sometimes we can change verbs to nouns by adding suffix.

ION		SAME FORM	
<u>Verbs</u>	<u>Nouns</u>	<u>Verbs</u>	<u>Nouns</u>
Subtract	- Subtraction	Play	- Play
Communicate	- Communication	Change	- Change
Act	- Action	Work	-Work
Retract	- Retraction	Use	- Use

PRACTICE: Choose the correct forms of the words above to complete each sentence (use each word only once)

- We can _____ the form of $y-x$ by factoring out -1
- The government plans to make important _____ to the tax system
- In the serf system people could _____ a sheep for a hammer
- Casino is a place where people _____ gambling games for money
- Youth is the time for _____, Age is the time for repose
- I didn't get into _____ with him for long
- If we _____ 7 from 10, we have 3
- Many of Shakespear's _____ are tragedies under the feudalism
- He is a person who _____ kindly toward everyone
- I saw her last on the flight to Hanoi since then we haven't _____ for years
- The boss _____ the workers too hard
- The _____ of building the bridge spaning Danh River took two years
- Ten from seven is a very simple _____

BUILDING VOCABULARY SKILLS

Vocabulary review

Match each word in column A with the word in column B that has opposite meaning:

A	B
1. Negative number	Less than or equal to
2. Subtracting	Is the same as
3. Greater than	Positive number
4. Absolute value	Less than
5. Negative infinity	Multiplication
6. Not equal to	Minimum value
7. Greater than or equal to	Positive infinity
	Adding

