

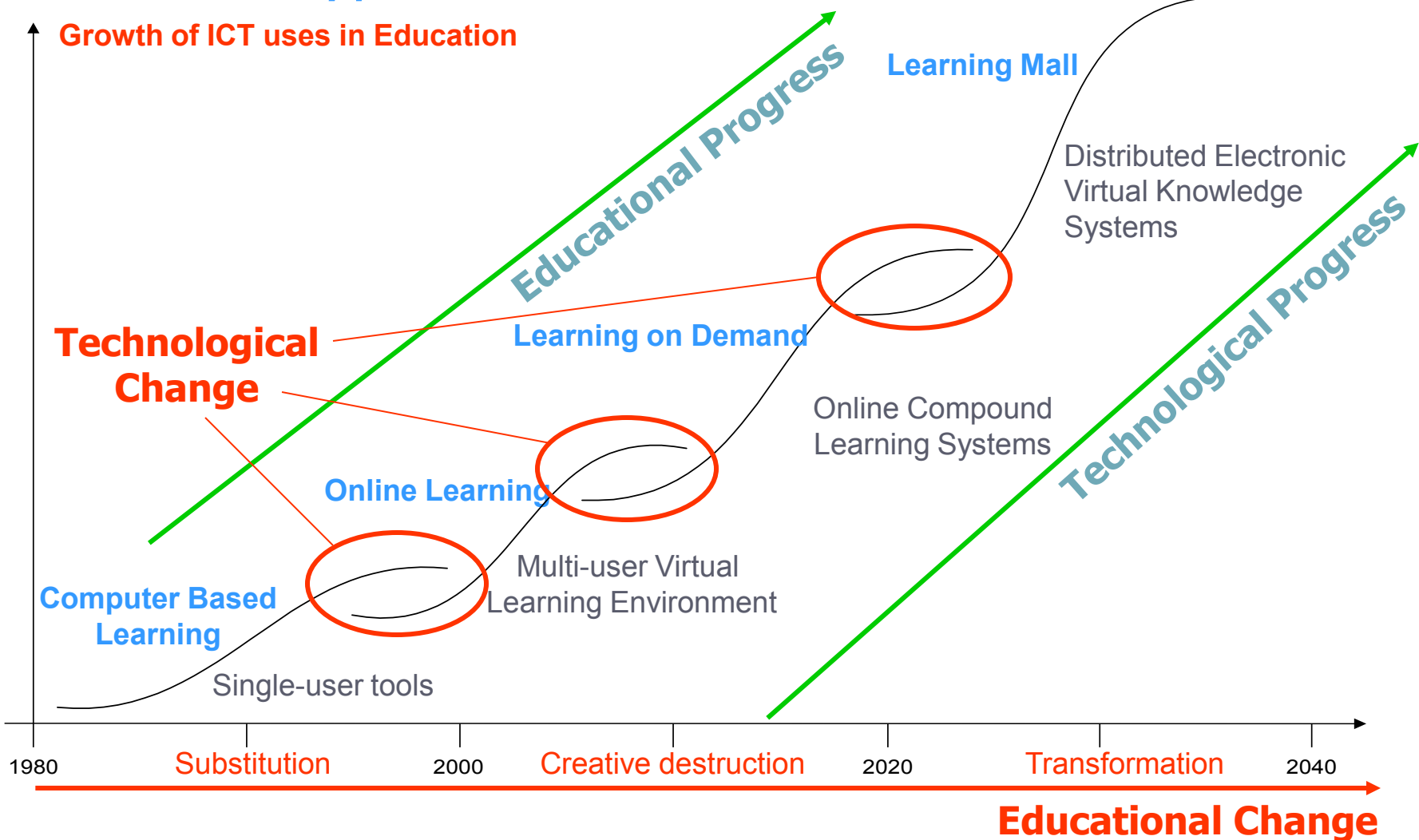
Pemanfaatan ICT

(Information Technology and Communication)
dalam Pembelajaran Matematika

S a h i d
sahidyk@yahoo.com

Jurusan Pendidikan Matematika
FMIPA UNY

Growth – Hypothetical Model of ICT in Education ©

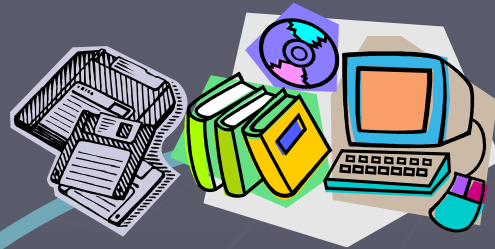


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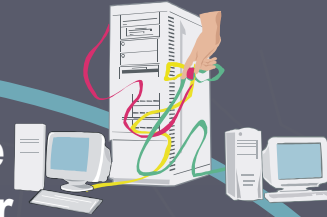


Apakah TIK?

Teknologi Komputer



Hardware
Komputer



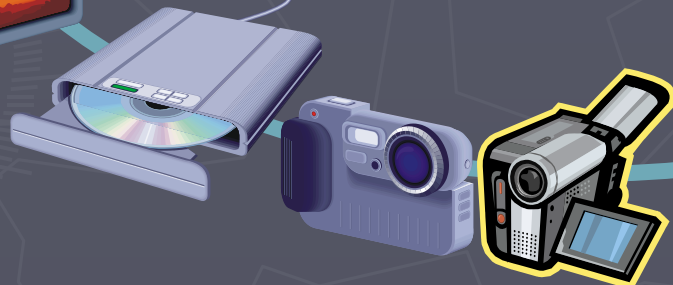
Jaringan
Komputer



Teknologi
(Tele)Komunikasi



Software
Komputer



Teknologi
Multimedia

Ketersediaan TIK

- PC (desktop, laptop/notebook, tablet PC, UMPC)
- Software aplikasi
- Piranti mobilitas (telepon genggam, PDA, GPS)
- Teknologi jaringan (termasuk WiFi)
- Aplikasi Internet (*E-mail*, HTML, XML, MathML, PHP, JavaScript, Java Applet, Flash, forum diskusi, *Instant Messangers/Chatting*, CMS, LMS, *Weblog*)
- Teknologi multimedia (kamera digital , kamera video digital, konverter/player audio digital)

Software Matematika/Pend Mat

Aplikasi Matematika Komersial:

- ▶ **MS Excel** (manipulasi dan analisis data, simulasi, visualisasi, dll.)
- ▶ Aplikasi Statistika (**SPSS, Minitab, S-PLUS**, dll.)
- ▶ **Maple** (komputasi matematika simbolik)
- ▶ **Matlab** (komputasi matematika numerik)
- ▶ Presentasi matematika (**Mathematica, MathCAD, Scientific Word**, dll.)
- ▶ Aplikasi geometri (**Cabri 2D, Cabri 3D, Geometer SketchPad**, dll.)

Aplikasi Matematika Gratis

- ▶ **Open Office** (aplikasi gratis serupa MS Office)
- ▶ **MuPAD** (komputasi matematika simbolik)
- ▶ **Scilab** (komputasi matematika numerik)
- ▶ **LaTeX** (pengolah dokumen matematis)
- ▶ Aplikasi geometri (**CaR, GeoGebra**, dll.)
- ▶ Aplikasi aljabar (**Graphes**, dll.)

Mengapa TIK?

- ▶ Dorongan teknologi (*technology driven*)
- ▶ Kebutuhan pasar kerja
- ▶ Tuntutan dalam pembelajaran

Potensi TIK untuk Pembelajaran

- ▶ **Konektivitas**
- ▶ **Fleksibilitas**
- ▶ **Interaktivitas**
- ▶ **Kolaborasi (kerja sama)**
- ▶ **Perluasan kesempatan belajar**
- ▶ **Motivasi**

Peranan Teknologi Informasi & Komunikasi

- ▶ Teknologi → faktor utama dalam proses transisi menuju “**knowledge based economy**” & “**information society**”
- ▶ Aplikasi TIK untuk mengelola informasi dan memecahkan masalah → **memerlukan serangkaian keterampilan dalam bidang TIK**
- ▶ Aplikasi TIK → **mendukung perubahan-perubahan pedagogis dalam visi kurikulum baru**

Tuntutan Perubahan Kurikulum dalam “*Knowledge Based Economy*” & “*Information Society*”

- ▶ Keterampilan **belajar sepanjang hayat**
- ▶ **Keterampilan Metakognisi** (kemampuan siswa menentukan sendiri tujuan belajarnya, merencanakan belajarnya, dan mengevaluasi keberhasilannya)
- ▶ Pembelajaran berubah dari sekedar *transfer of knowledge/skills* → menuntut **keterlibatan siswa secara lebih aktif**

Karakteristik Kurikulum untuk

“*Knowledge based Economy*” dan “*Information Society*”

- ▶ **Tujuan baru:** siswa memiliki kompetensi dalam mengelola informasi, berkomunikasi dan bekerja sama, dan metakognisi.
- ▶ **Materi belajar bersifat fleksibel** (tidak kaku)
- ▶ **Materi pembelajaran terpadu:** siswa memahami hubungan antar bidang studi, tidak sekedar mampu mengulang (menghafal) fakta-fakta
- ▶ Berpusat pada **masalah-masalah otentik** yang didasarkan pada dunia nyata
- ▶ **Tidak ada batas antara sekolah dan dunia luar, jam belajar siswa tidak banyak di kelas/sekolah, pendekatan belajar individual.**

(Voogt and Odenhal, 1999)

Implikasi Perubahan Tujuan dan Isi

- ▶ **Metode Penilaian Baru**
- ▶ Dari sekedar mengukur kemampuan mengulang/menghafal pengetahuan ke **mengukur kemampuan menggunakan pengetahuan dalam dunia nyata.**
- ▶ Dari Format Tertutup ke **Format Terbuka** (*portfolio, performance assessment, dll.*)
- ▶ Dari Penilaian Sumatif ke **Penilaian Formatif.**

Dimensi Pemanfaatan TIK dalam Pembelajaran

TIK sebagai Teknologi Utama

**Belajar
bagaimana
menggunakan
TIK**

**TIK digunakan
sebagai materi
pembelajaran**

**TIK sebagai teknologi
utama untuk interaksi
pembelajaran**

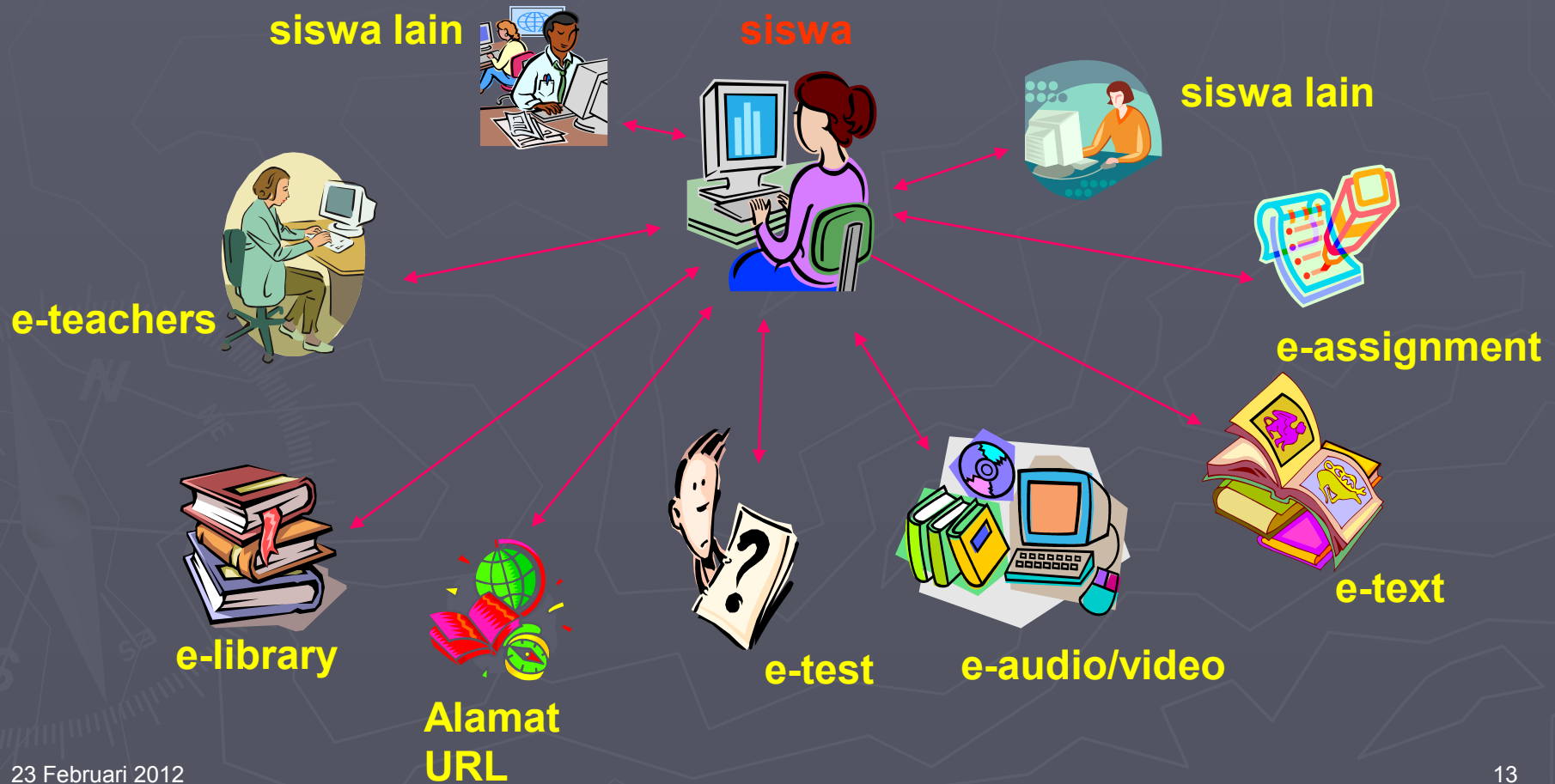
**Belajar
dengan
dan
melalui
TIK**

**TIK digunakan
sebagai media
pembelajaran**

**TIK digunakan untuk
memfasilitasi
terjadinya interaksi
pembelajaran**

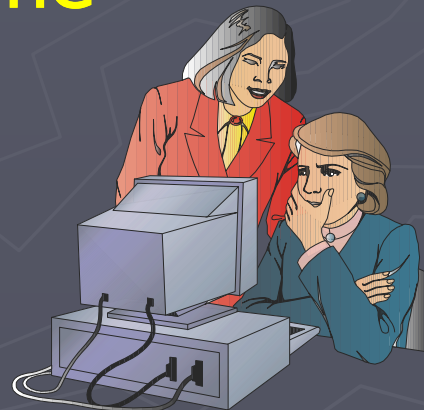
TIK sebagai Teknologi Pendukung

Skenario Pemanfaatan TIK dalam Pembelajaran



Strategi Pemanfaatan TIK dalam Pembelajaran

- ▶ TIK sebagai sarana/tempat belajar
- ▶ TIK sebagai alat/media pembelajaran
- ▶ TIK sebagai sumber pembelajaran
- ▶ TIK sebagai sarana peningkatan profesionalisme



TIK sebagai Sarana/Tempat Belajar



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Tue

dari kompu

Drs. Sahid MSc.

MAT 327 M - Sem Sept 2005- Jan 2006
Metode Numerik - Drs. Sahid, MSc.

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- ? [Materi ming](#)
- ? [Penyelesaian](#)
- ? [Penyelesaian](#)
- ? [Hampiran A](#)
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Kelas Online (E-learning)

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Regular pentagon

Step 25: add line 7 (from points 2 et 10). ([Cancel](#) [Back to start](#))
 Your goal is to construct the regular pentagon with center 1 and a vertex on 2. [Hint](#).

The goal of the construction is already reached.

WWW Interactive Mathematics Server
 (WIMS) at

Aplikasi Matematika Online

Lines and circles:
 Number 1
 Number 2
 Number 3
 Number 4
 Number 5
 Number 6
 Number 7

Step 26 of the solution: [hide/recover line 2](#).

[Continue the construction yourself](#).

Configuration: picture includes all the points, zoom size

Arithmetic table 3x5

Question. Natural numbers (small).

Fill-in the table by dragging the numbers below into it, so that each line and each column gives the indicated sum.

	column 1	column 2	column 3	column 4	column 5	Sum
row 1	?	?	?	?	?	14
row 2	?	?	?	?	?	15
row 3	?	?	?	?	?	14
Sum	10	5	12	6	10	

2 1 2 4 5 4 4 1 3 4 3 3 2 2 3

[Renew the exercise](#)

Graphic derivative

figures below.

- [Online calculators and plotters](#) : numbers, functions, n
- [Interactive exercises](#) of various styles and levels.
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You may also [browse the site](#).

Create my own [simple interactive exercises](#)

[tech doc](#)

WIMS-3.34 compiled on 2003-11-19. Site manager: wims@www.math.uny.ac.id.

TIK sebagai Alat/Media Pembelajaran

CAI Matematika

Epsilon - Interactive Mathematics Courseware

Epsilon Contents

- Numbers and algebra
 - Basic algebra rules
 - Complex numbers
 - Sequences and series
- Calculus**
- Matrices and linear systems
- Vectors and vector calculus

Calculus

In this section you will learn about functions and integration, and polynomials.

Epsilon - Limits and Continuity

What is the limit of a function?

Epsilon - Limits and Continuity

5 LIMITS AND CONTINUITY

By the end of this unit you should be able to:

- estimate limits
- calculate simple limits using the laws of limits
- calculate one-sided limits and limits at infinity
- determine the continuity of a function

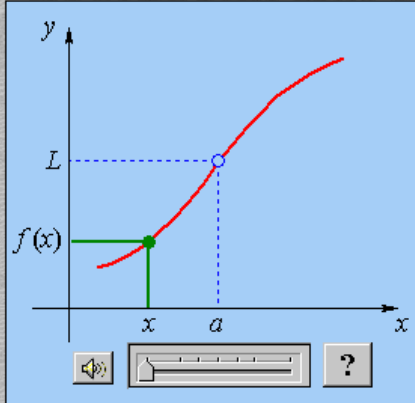
Play

Limits play a fundamental role in calculus; they are used to define the two very important calculus concepts: the instantaneous rate of change of a function and the area under a curve.

We say that the **limit** of a **function** f at a number $x = a$ is L if the value of $f(x)$ can be made as close to L as we wish by choosing x sufficiently close to a (but not equal to a). We write this as

$$\lim_{x \rightarrow a} f(x) = L$$

We say **the limit of $f(x)$ as x tends to a is L .**



Play

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CDROM

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Mathematics

Mathematics Subject C

Mathematics, New

- + Mean (mathematics)

Mathematics Content

Geometry

Article Outline | Related Articles | Contents Page

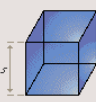


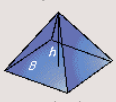
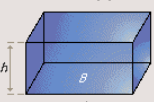
I. INTRODUCTION

geometry include analytic geometry, descriptive geometry, analysis situs or topology, the geometry of spaces having four or more dimensions, fractal geometry, and non-Euclidean geometry.

Volume of Geometrical Figures

Different three-dimensional geometrical figures have different formulas for finding their volumes, or the amount of space that they take up.

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Cube	Sphere	Tetrahedron
		
$V = s^3$	$V = \frac{4}{3} \pi r^3$ Or $V = \frac{1}{6} \pi d^3$	$V = \frac{1}{3} Bh$
Pyramid	Parallelepiped	
		
$V = \frac{1}{3} Bh$	$V = Bh$	

V=volume h=height B=area of base d=diameter r=radius s=side

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- Arithmetic
- Calculus (mathematics)
- Geometry
- Mathematics, New
- Number Systems

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Babylonian	𐎶	𐎵𐎶	𐎶𐎶𐎶	𐎶𐎶𐎶𐎶	𐎶𐎶𐎶𐎶𐎶	𐎶𐎶𐎶𐎶𐎶𐎶	𐎶𐎶𐎶𐎶𐎶𐎶𐎶	𐎶𐎶𐎶𐎶𐎶𐎶𐎶𐎶	𐎶𐎶𐎶𐎶𐎶𐎶𐎶𐎶𐎶	𐎶𐎶𐎶𐎶𐎶𐎶𐎶𐎶𐎶𐎶	𐎶𐎶𐎶𐎶𐎶𐎶𐎶𐎶𐎶𐎶𐎶	𐎶𐎶𐎶𐎶𐎶𐎶𐎶𐎶𐎶𐎶𐎶𐎶
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Greek Herodianic	𐀀	𐀀𐀀	𐀀𐀀𐀀	𐀀𐀀𐀀𐀀	𐀀𐀀𐀀𐀀𐀀	𐀀𐀀𐀀𐀀𐀀𐀀	𐀀𐀀𐀀𐀀𐀀𐀀𐀀	𐀀𐀀𐀀𐀀𐀀𐀀𐀀𐀀	𐀀𐀀𐀀𐀀𐀀𐀀𐀀𐀀𐀀	𐀀𐀀𐀀𐀀𐀀𐀀𐀀𐀀𐀀𐀀	𐀀𐀀𐀀𐀀𐀀𐀀𐀀𐀀𐀀𐀀𐀀	𐀀𐀀𐀀𐀀𐀀𐀀𐀀𐀀𐀀𐀀𐀀𐀀
Roman	I	II	III	IV or A	V	VI	VII	VIII	IX	X	XX	XXX

Ancient Mathematical Characters

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- Calculus (mathematics)
- Geometry
- Mathematics, New
- Number Systems

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Polyhedron Nets

- ◉ Cube
- ◉ Cuboctahedron
- ◉ Deltoidal Hexecontahedron
- ◉ Deltoidal Icositetrahedron
- ◉ Disdyakis Dodecahedron
- ◉ Disdyakis Triacontahedron
- ◉ Dodecahedron
- ◉ Great Rhombicosidodecahedron
- ◉ Great Rhombicuboctahedron
- ◉ Icosahedron
- ◉ Icosidodecahedron
- ◉ Octahedron
- ◉ Pentagonal Hexecontahedron
- ◉ Pentagonal Icositetrahedron
- ◉ Pentakis Dodecahedron
- ◉ Rhombic Dodecahedron
- ◉ Rhombic Triacontahedron
- ◉ Small Rhombicosidodecahedron
- ◉ Small Rhombicuboctahedron
- ◉ Small Triakis Octahedron
- ◉ Snub Cube
- ◉ Snub Dodecahedron
- ◉ Square Antiprism
- ◉ Tetrahedron
- ◉ Tetrakis Hexahedron
- ◉ Triakis Icosahedron
- ◉ Triakis Tetrahedron
- ◉ Truncated Cube
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- ◉ Truncated Octahedron
- ◉ Truncated Tetrahedron

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DESTINATIONS

Octahedron

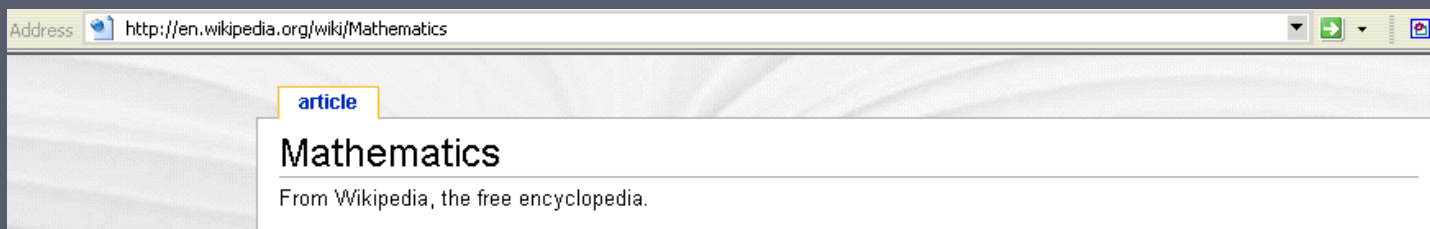
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<i>Boat</i> 	<i>octahedron</i> 	<i>truncated tetrahedron</i> 	<i>square dipyramid</i> 	<i>triangular cupola (J3)</i> 
<i>gyrobifastigium (J26)</i> 	<i>augmented triangular prism (J49)</i> 	<i>tridiminished icosahedron (J63)</i> 	<i>hexagonal prism</i> 	<i>heptagonal pyramid</i> 

An octahedron is a polyhedron having eight faces. Examples include the *augmented triangular prism* (Johnson solid J_{49}), *boat*, *gyrobifastigium* (Johnson solid J_{26}), *heptagonal pyramid*, *hexagonal prism*, (regular) *octahedron*, *square dipyramid*, *triangular cupola* (Johnson solid J_3), *tridiminished icosahedron* (Johnson solid J_{63}), and *truncated tetrahedron*.

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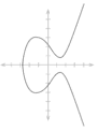
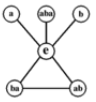

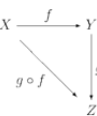



External links

- Bogomolny, Alexander: *Interactive Mathematics Miscellany and Puzzles*. A collection of articles on various math topics with interactive Java illustrations
- Rusin, Dave: *The Mathematical Atlas*. A guided tour of various branches of modern mathematics.
- Stefanov, Alexandre: *Textbooks in Mathematics*. A collection of online textbooks and lecture notes in mathematics.
- Weisstein, Eric et al.: *MathWorld: World of Mathematics*. An online encyclopedia of mathematics.
- Polyanin, Andrei: *EqWorld: The World of Mathematical Equations*. An online resource focusing on algebraic, ordinary differential, and partial differential (mathematical physics), integral, and other equations.
- A mathematical thesaurus maintained by the NRICH at the University of Cambridge (UK), *Connecting Mathematics*
- *Planet Math*. An online math encyclopedia under construction focusing on modern mathematics. Uses the GFDL, allows exchange with Wikipedia. Uses TeX markup.
- *Mathforge*. A news-blog with topics ranging from popular mathematics to popular physics to computer science and mathematics.
- *Young Mathematicians Network (YMN)*. A math-blog "Community of Young Mathematicians". Topics include Grad and Undergrad Life, Job Search, Career, Work & Education.
- *Metamath*. A site and a language, that formalize mathematics.
- *Math in the Movies*. A guide to major motion pictures related to mathematics.
- *Mathematics in fiction*. Links to works of fiction that refer to mathematics or mathematicians.

Wikibooks has more about this subject


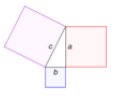
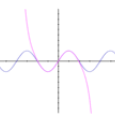
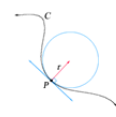

Pinning down ideas of size, symmetry, and mathematical structure.

 Abstract algebra	 Number theory	 Group theory
 Topology	 Category theory	 Order theory

Abstract algebra – Number theory – Algebraic geometry – Group theory – Monoids – Analysis – Topology – Linear algebra – Graph theory – Universal algebra – Category theory – Order theory – Measure theory

Space

A more visual approach to mathematics.

				
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ics such as **quantity**, **structure**, **space**, **time**, and **information**. For mathematicians, is that mathematics is the study of **quantity**, **structure**, **space**, **time**, and **information**, starting from **axioms** and



purposes as **accounting**, **measuring** land, or predicting the future. One of the purposes of mathematics involves discovering and cataloging patterns, without which modern mathematics often turns out to have practical applications is the study of **mathematics**. Today, the **natural sciences**, **technology**, and **mathematical discoveries**.

The word **mathematics** meaning "science, knowledge, or learning" and its abbreviation **maths** in **Commonwealth English** and **math** in **American English**.

[edit]

long series of abstractions, or alternatively an expansion of the concept of **sets**. The realization that two apples and two oranges do not make four pieces of fruit, but are still only one person, was a breakthrough in human history. Prehistoric peoples also recognized how to count (e.g. **addition**, **subtraction**, **multiplication** and **division**), and the development of geometry.

Numbers such as **tallies** or the knotted strings called

TIK sebagai Sumber Belajar



Web Hasil 1 - 10

[Eric Weisstein's World of Mathematics](#)

Glossary of terms. Material ranges from undergraduate to research level.
mathworld.wolfram.com/ - 20k - [Salinan](#) - [Halaman serupa](#)

[Mathematics Archives WWW Server](#)

The home page of the **Mathematics Archives** - A comprehensive site for **mathematics** on the Internet.
archives.math.utk.edu/ - 6k - [Salinan](#) - [Halaman serupa](#)

[Interactive Mathematics Miscellany and Puzzles](#)

Math puzzles. Interactive education. A lot of math information for teachers and students and parents. Work out and enjoy **mathematics**.
www.cut-the-knot.org/index.shtml - 40k - [Salinan](#) - [Halaman serupa](#)

[MacTutor History of Mathematics](#)

An extensive and searchable archive covering famous people and concepts as describing the development of **mathematics** in various cultures.
www.groups.dcs.st-and.ac.uk/~history/ - 6k - [Salinan](#) - [Halaman serupa](#)

[Mathematics WWW Virtual Library \[FSU Math\]](#)


To suggest an addition to the **Mathematics Virtual Library** please fill in the form. This collection of **Mathematics**-related resources is maintained by the FSU Math Library.
euclid.math.fsu.edu/Science/math.html - 18k - [Salinan](#) - [Halaman serupa](#)

[History of Mathematics Home Page](#)

About the same time some **mathematics** of India was translated into Arabic. Later some of this **mathematics** was translated into Latin and became the foundation of modern mathematics.
aleph0.clarku.edu/~djoyce/mathhist/mathhist.html - 3k - [Salinan](#) - [Halaman serupa](#)

Mesin Pencarian

18 Februari 2009



The MacTutor History of Mathematics archive

[Biographies Index](#)

[History Topics Index](#)

[Famous curves index](#)

[Mathematicians of the day](#)

Recently added features

Changes to the archive to AUGUST 2005 including 32 new biographies and 37 up-dated ones

There are new translations by J S D Glaus of **Eulogies to Euler** by [Condorcet](#) and [Fuss](#)

Address: <http://www.cut-the-knot.org/content.shtml>

You are visitor number 111011010001100110010000 in base 2

Interactive Mathematics Miscellany and Puzzles

Raymond Smullyan, a Mathematician, Philosopher and author of several outstanding books of logical puzzles, tells, in one of his books, a revealing story. A friend invited him for dinner. He told Smullyan that his teenage son was crazy about Smullyan's books and could not wait to meet him. The friend warned Smullyan not to mention that he is a Mathematician and that Logic is a part of Mathematics because the young fellow hated Mathematics.

Having told this story, would it be wise to announce up front what this site is about? Perhaps against a better judgement, I've put together a [manifesto](#) that aims to explain the purpose of this site.

Did you know that...

There is something the dead eat but if the living eat it, they die

Arithmetic

- [Base Conversion](#)
- [Divisibility Criteria](#)
- [Euclid's Game](#)
- [Fast Arithmetic Tips](#)
- [Hour glass timing](#)

Algebra

- [Binary Color Device](#)
- [Candy Game](#)
- [Chebyshev polynomials](#)
- [Counting Triangles](#)
- [Averages](#)


Eye Opener Series

- [Breaking Chocolate Bars](#)
- [Farmer and Wife](#)
- [Make Your Move, Kid!](#)
- [Solitaire on the Circle](#)
- [Two Butterflies Theorem](#)

Search: Books

Keywords:

GO!



 Web CTX

Latest on CTK Exchange

- [probability](#)
Posted by tennyson
6 messages
03:13 PM, Aug-29-05
- [The number 0.142857.....](#)
Posted by Zakatos
2 messages
10:54 AM, Nov-05-05
- [Fun probability question](#)
Posted by Owen
4 messages
00:02 AM, Nov-19-05
- [The pyramid problem](#)
Posted by Deep G
0 messages
04:34 PM, Nov-19-05
- [A self-referencing sentence in us ...](#)
Posted by Paul R.
1 messages
09:42 PM, Nov-16-05
- [A Parallel Question](#)
Posted by Beate

22

TIK untuk pengembangan profesi

Address  <http://www.nctm.org/>



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[Achievement Gap New!](#)

[Calculators New!](#) and [more](#)

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Share Your Ideas

2005 NCTM Continuing In Mathematics

Standards & Curriculum
A View from the Nation

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Situs Organisasi Profesi Guru Matematika



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Professional Development Resources

NCTM offers print and electronic resources to support professional development.

These resources embody NCTM's [Principles and Standards for School Mathematics](#).

Quick Links

- PD Events
- PD Resources
- PD Services
- E-Workshops
- Focus of the Year
- NCATE Reviews

Professional Development Focus of the Year

Resources for the [Professional Development Focus of the Year](#) are available for elementary school, middle school, and high school.

 **ALGEBRA**

NCTM 2004-05 Professional Development

Developing Algebraic Thinking

The Focus of the Year topic for the 2004-2005 school year is Developing Algebraic Thinking: A Journey from Preschool to High School.

The Focus of the Year topic for 2005-2006 is Assessing to Learn and Learning to Assess.

Journals

[NCTM school journals](#) are a rich resource for professional development. Teachers can use any journal article as a professional development experience. The following enhanced journal articles provide examples of how to do this.

TIK untuk pengembangan profesi

Situs Lesson Plan

Google Cari [Pencarian Canggih](#) [Kesukaan](#)

Telusuri: situs web halaman dari Indonesia

Web Hasil 1 - 10 dari 2,140,000 untuk **lesson plan mathematics**. (0.22 detik)

Free **Lesson Plans**
www.kidzonline.org Free, downlo

Mathematics Lesson Plans
Separated into 3 age levels: Element
200 **lesson**s, all in text file format.
www.col-ed.org/cur/math.html - 8k -

CEC Lesson Plans
Language Arts, **Mathematics**
lesson plan listings to see w
www.col-ed.org/cur/ - 7k - Sal

www.nytimes.com/learning/teac
Halaman serupa

McREL Resources: Lesson P
Lesson Plan Library - **Mathematics**
classroom. Related Resources - Mat
www.mcrel.org/lesson-plans/math/ir

The Lesson Plans Page - Mat
This section of The **Lesson Plans P**
lessons, math thematic units, **lesso**
www.lessonplanspage.com/Math.ht

Mathematics Archives - K12 In
Columbia Education Center **Mathem**
has been asked to create and publi

Address <http://www.col-ed.org/cur/math/math02.txt>

TITLE: THE FACTS, GIMME JUST THE FACTS!!!

AUTHOR: V.Halsted, Lincoln Elementary, Woodburn, Oregon

GRADE LEVEL/SUBJECT: Appropriate for grades 2-6
Mathematics computation.

OVERVIEW: The teaching and learning of mathematics is facilitated by the development of a definite task analysis. Each skill builds upon and rests on the previous skills learned. Therefore, knowing all multiplication facts will help in the learning of subsequent skills in hard multiplication, division, fractions, etc.

PURPOSE: To help all students systematically learn their times tables, teach the facts in this way:

ACTIVITIES AND PROCEDURES:

1. Check to see that all students know their 0's,1's,2's,5's,10's,11's--drill on these, have students all say them orally, show students how to count 5's on their fingers (hands-on)!!!.After several days of practice, give a 2 or 3 minute timed test on these facts. Keep giving the test, each day, until all students or most students pass. Use a stop watch. As each child passes, you say their time. They write down the time and each day, they try to beat their old time, once they pass. If all students pass, celebrate with treats, an extra recess, pop corn, etc. Keep the papers of the students who pass, showing their best times.
2. Teach the 3 times tables. Students use hands to count out "0,3,6,9,12,15,18,21,24,27,30". Drill on these each day. Students say the 3's when they come in to class, when they go out from class, etc. THEY ALL CAN DO THIS.

Mathematics **Lesson Plans**

Math - Elementary (K-5)

- [math01.txt](#) Math review on concept and facts (4-6)
- [math02.txt](#) Learning multiplication tables (2-6)
- [math03.txt](#) Interpret data and making a graph (3-6)
- [math04.txt](#) Exploring Base 4 (4)
- [math05.txt](#) One to one matching and writing numerals (K-1)
- [math06.txt](#) Calculator Pattern Puzzles (gifted K-5)
- [math07.txt](#) Observation, sorting, predicting, using valentine candy (1-4)
- [math08.txt](#) Use of manipulatives to Pre-Algebra (3-8)
- [math09.txt](#) Making Change; Buying at community store (K-2)
- [math10.txt](#) Multiplication; hands-on arrays, skip counting (2-3)
- [math13.txt](#) Using M&M cookies to work math problems (4-6)
- [math14.txt](#) Addition and Subtraction game (2-8)
- [math16.txt](#) Place Value using a dice game (4)
- [math17.txt](#) Ratio; using peanut butter & jelly sandwich (4-6)
- [math18.txt](#) Mystery number motivates place value (2-6)
- [math19.txt](#) Fraction Hunt activity sheet (3-5)
- [math20.txt](#) Cooking; practical application of math (4-6)
- [math21.txt](#) Making estimations (2)
- [math24.txt](#) Estimation using grocery list (3-5)
- [math25.txt](#) Problem solving using the sports page (4)
- [math26.txt](#) Probability with hands-on/cooperative learning activity (1-5)
- [math27.txt](#) "Math Shortcuts"; multiplication & division (4-6)
- [math30.txt](#) Area & Volume; a hands-on activity (3-6)
- [math32.txt](#) Tree Measurement: Understanding vertical and horizontal measure
- [math33.txt](#) Problem Solving and Computation activity using pattern blocks (
- [math39.txt](#) Equivalent Fractions, easily identified using physical objects
- [math40.txt](#) Thinking Skill activity using '21 Game' (2-6)
- [math43.txt](#) Positive and Negative numbers activity (4- 12)
- [math44.txt](#) Listening Practice/Team Review activity (4- 8)
- [math45.txt](#) "Estimating With Money", (1-5)

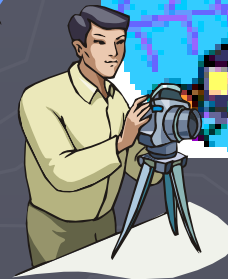
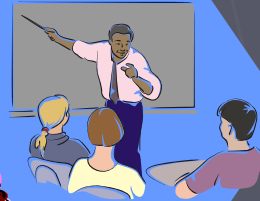
Syarat Pemanfaatan TIK: Melek & Budaya IT



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Teknologi?



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persepsi ttg
Teknologi?



Salah memanfaatkan
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Terima kasih!