

VITA

Lon-Capa in Wolfenbüttel, Germany

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Wolfenbüttel?!

- Northern Germany
- Famous for its (old fashioned) library
- University of Applied Sciences Braunschweig / Wolfenbüttel
 - 4 campuses
 - 10 departments
 - 7500 students
- Lon-Capa team: 3 + x



Motivation – Why loncapa?

- Limited resources at Universities of Applied Sciences
 - Additional training for students needed
 - Previous commercial system was a nightmare
- Diploma project: Research for alternatives
- Lon-Capa! (Sep 2006)

en Wert von x an, für den der Rang von $\begin{pmatrix} 5 & 2 \\ x & 1 \end{pmatrix}$ maximal ist.

=

Your Answer: 5/2

Correct Answer: 5/2



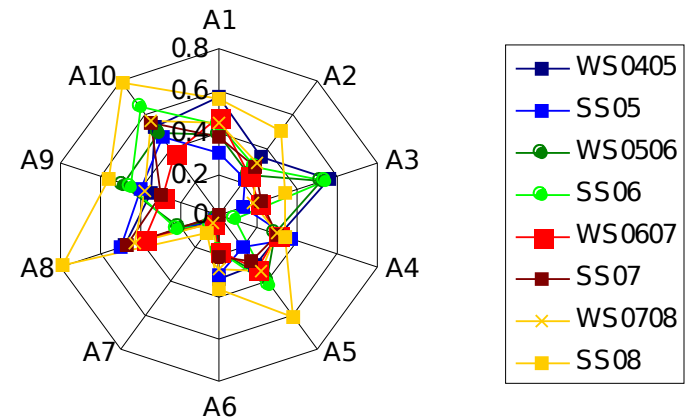
Lon-Capa main usage

- Training for students
 - Practice mode
 - Problems from own and other domains
 - Prep up for lab courses
- Creation of new problems
 - Maths, Technical Mechanics, Engineering
- Course management
 - Classlists, broadcast messages, groups, course documents, etc.



Tests

- University wide math prep up course
 - Placement in peer group depending on test results
 - Final test for before/after comparison
- Math test for CS freshmen
 - Shows severe deficits in math at a junior level
 - Provides rather reliable prediction of first year grades
 - Sort of long term study (since 4 years)



Computer Algebra System

- So far "only" <formularesponse>
- Requests for mathematical problems:
 - More functionality
 - More programming convenience
- Computer Algebra System (CAS)
- Specification of CAS interface together with MSU team
- MSU: main implementation
- As of 2.4.0 (June 2007) *maxima* interface available
- Currently about 270 problems using CAS functionality (domains fhwf and nds)

Computer Algebra System

Examples

Give an example of an even function with respect to x :

This function is odd. You were asked to state an **even** function.

Incorrect. Tries 1 [Previous Tries](#)

State a function $y(x)$ with constant slope which passes through the point $(-1 | 2)$.

$y(x) =$

The function you have provided does not have constant slope.

Incorrect. Tries 1/3 [Previous Tries](#)

Self-enrollment

- No tuition fee
 - no registrar's office
 - no automatic classlist upload
- Analysis of existing code
- Added own script for self-enrollment
 - LDAP authentication
 - Allows for course selection
 - Prepare classlist file
 - Use Auto-enrollment
- As of 2.7 (summer 2008): Self-enrollment included in Lon-Capa

Kurse selber belegen	Angemeldet bisitzs (Bisitz, Stefan) Abmelden
Information > Anmeldung > Kursauswahl > Bestätigung > Kursbelegung	
Kursauswahl	
Bitte wählen Sie den Kurs aus, den Sie belegen möchten.	
Bitte Kurs auswählen: <input type="text"/>	
Weiter	
Wo ist mein Kurs? Manche Kurse werden an dieser Stelle erst zu einem späteren Zeitpunkt oder nicht mehr angeboten. Sollte ein von Ihnen gewünschter Kurs nicht zur Auswahl stehen, wenden Sie sich bitte an Ihren Dozenten.	
Information	Benutzer wechseln
Login Lernplattform	Projekt VITA

Contribution to Lon-Capa

Content Creation

- Federal state project *Elan III*
- Grant for creating problems
 - Elementary subjects
(Maths, Technical Mechanics, ...)
- Authors: core team and students
- More than 900 new problems in 1 year
- Currently used in 10 courses at 2 universities

Contribution to Lon-Capa

Code development

- Bugs and enhancements
- German language interface
- Some code optimizations
- More help intended



On Agenda

- PDF forms
- Bringing Lon-Capa to Russia
- Spanish language training
- Fashionable Lon-Capa interface
- Electronic exams

Вы покупаете в магазине 150 г. помидор по цене 2.29 € за килограмм. На кассе вы даёте 50€.

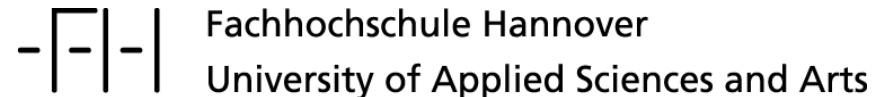
Сколько сдачи должен дать вам кассир.

 €

Послать Ответ Попыток 0/2

Cooperations

- MSU
Elan III, loncapa development
- FH OOW, FH Hannover
Elan III, content sharing, placement tests, PDF forms
- Frankfurt University
Consulting, content sharing
- Local schools
Internships, one-week trial study, project work



Contact

- Project website:
www.fh-wolfenbuettel.de/en/vita
(including public demonstration problems)

- Personal contact:
 - Peter Riegler
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 - Stefan Bisitz
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Thank you!

