

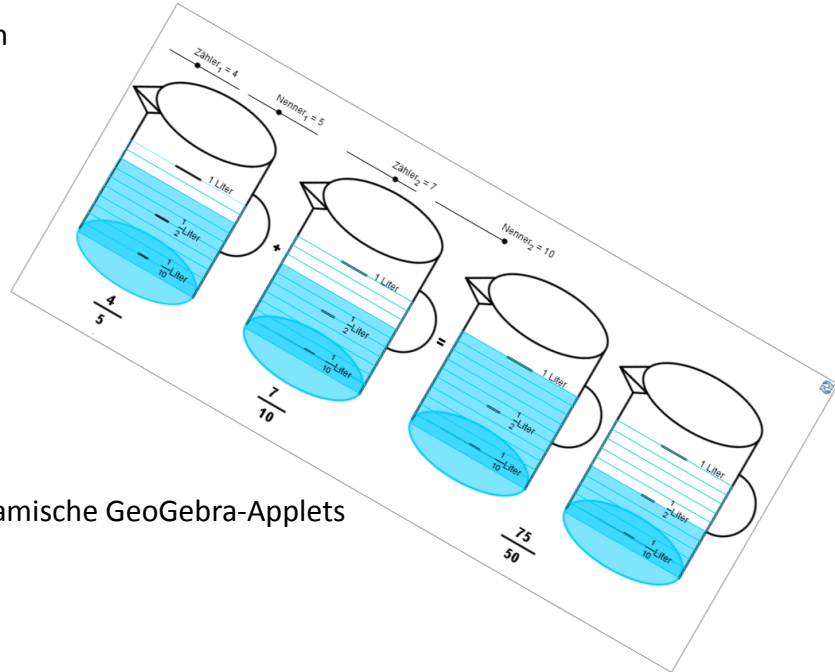


Das DMUW-Wiki

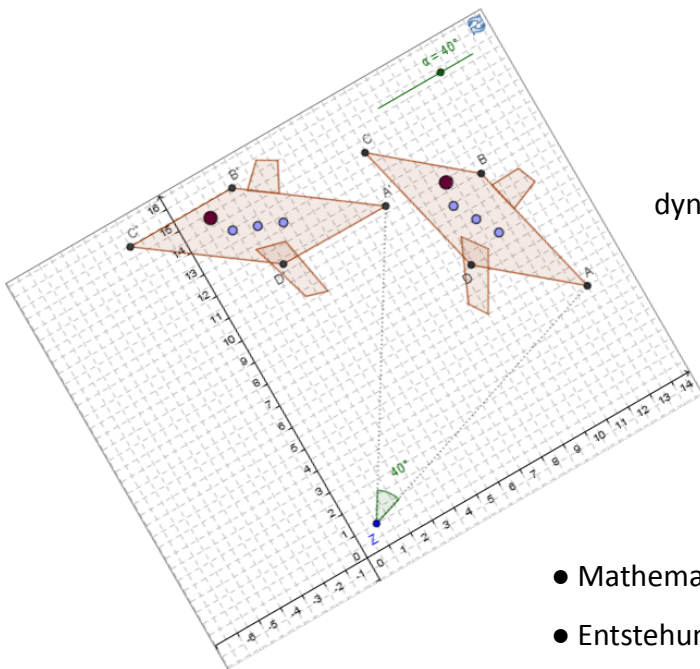
Wiki des Lehrstuhls Didaktik Mathematik der Universität Würzburg
<http://wikis.zum.de/dmuw/>

Mathematische Lernpfade – Internetseiten für den Mathematikunterricht

- Studierende erstellen Lernumgebungen
- Schüler arbeiten selbstständig
- anschauliche Mathematik
- Aufgaben mit Lösungen
- Schüler lösen Aufgaben im Wiki



dynamische GeoGebra-Applets



The Klein-Project – Internationales Projekt zu den Arbeiten von Felix Klein

- Mathematiker mehrerer Länder
- Entstehung eines Lehrbuchs
- Zusammenarbeit über das Wiki
- transparente Arbeit

How Google works

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1 Introduction

From its very beginning, Google became "the" search engine. This comes from the supremacy of its ranking algorithm: the *PageRank algorithm*. Indeed, with the enormous quantity of pages on the World-Wide-Web, many searches end up with thousands or millions of results. If these are not properly ordered, then the search may not be of any help, since no one can explore millions of entries.

How does the PageRank algorithm work?

We will explain this. But before, let us make a search on Google. On June 4 2010, you get 16,300,000 results for *Klein project*, even though the project is just beginning. On that precise date, the first entry is

<http://www.mathunion.org/icmi/other-activities/klein-project/introduction/>

rather than

<http://www.kleinproject.org/>

The first url is the url of a *page*, which is located on the website of the International Mathematical Union: <http://www.mathunion.org/>. Because the International Mathematical Union is an important body, its official website comes first when you make the search "International Mathematical Union". Moreover, it communicates some of its importance to all of its pages, one of which is

<http://www.mathunion.org/icmi/other-activities/klein-project/introduction/>

In a few months or years from now, we could expect that the page

<http://www.kleinproject.org/>

will appear first in a search for *Klein project*.

To explain the algorithm, we model the web as an oriented graph. The vertices are the *pages*, and the oriented edges are the *links* between pages. As we just explained, each page corresponds to a different url. Hence, a website may contain many pages. The model makes no difference between the individual pages of a website and its front page. But, most likely, the algorithm will rank better the front page of an important website.

Mathematisches Praktikum – Begleitseite zu Lehrveranstaltungen

- Studierende erstellen Wiki-Seiten
- Erlerntes wird praktisch umgesetzt
- Studierende steigern sich gegenseitig
- Dozenten korrigieren Ergebnisse

Andy Meyer, Jan Hillen

(weitergeleitet von Andy Meyer)

Börsenspekulation von Andy Meyer und Jan Hillen

Stand 15.6.10 | 22:00 Uhr

Aktien			
Name	Kurs	Stückzahl	Wert
Commerzbank	5,96 €	200	1.192,00 €
Eon	24,20 €	80	1.936,00 €
Lufthans	11,83 €	100	1.183,00 €
Thyssen Krupp	21,76 €	80	1.740,80 €
Aktien	6 021,80 €		
Rohstoffe	3 900,00 €		
Devisen	0,00 €		
GESAMT	9 921,80 €		
Restbetrag	78,20 €		

Rohstoffe			
Name	Kurs	Stückzahl	Wert
Weizen	130,00 €	30	3.900,00 €

Aufteilung Vermögen in Sparten

■ Aktien ■ Rohstoffe □ Devisen

Anteile am Vermögen

■ Commerzbank ■ Eon
 ■ Lufthans ■ Thyssen Krupp
 ■ Weizen □ Restbetrag