

# Flipped Classroom - An Alternative Approach to Enhance the Effectiveness of Learning and Teaching in Primary Schools

HKU e-Learning Development Laboratory

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Course Designer: Mr. Ha Chi Hung

Instructors: Mr. Chow Yan Lok, Mr. Lee Chi Shing, Mr. Sung Po Wah

# Session 1 Schedule

Time	Topic
1.1	Introduction of the idea of 'Flipping the Classroom'
1.2	Using "Screencast-o-matic" to create micro-lesson videos
1.3	Uploading Videos and Peer Sharing
1.4	Introduction of Different Means of Distributing Lesson Videos
1.5	Tips for Doing Screencasting and Preparation for session 2
1.6	Discussion of the Flip lesson design
1.7	Flipped Classroom Examples

# 1.1 Introduction of the idea of 'Flipping the Classroom'



# Reboot

SALMAN KHAN'S YOUTUBE LESSONS HAVE ALREADY MADE HIM A GEEK CELEBRITY. NOW HE WANTS TO REINVENT HOMEWORK, BANISH CLASSROOM LECTURES—AND MAYBE SAVE EDUCATION

BY KAYLA WEBLEY

the

# School

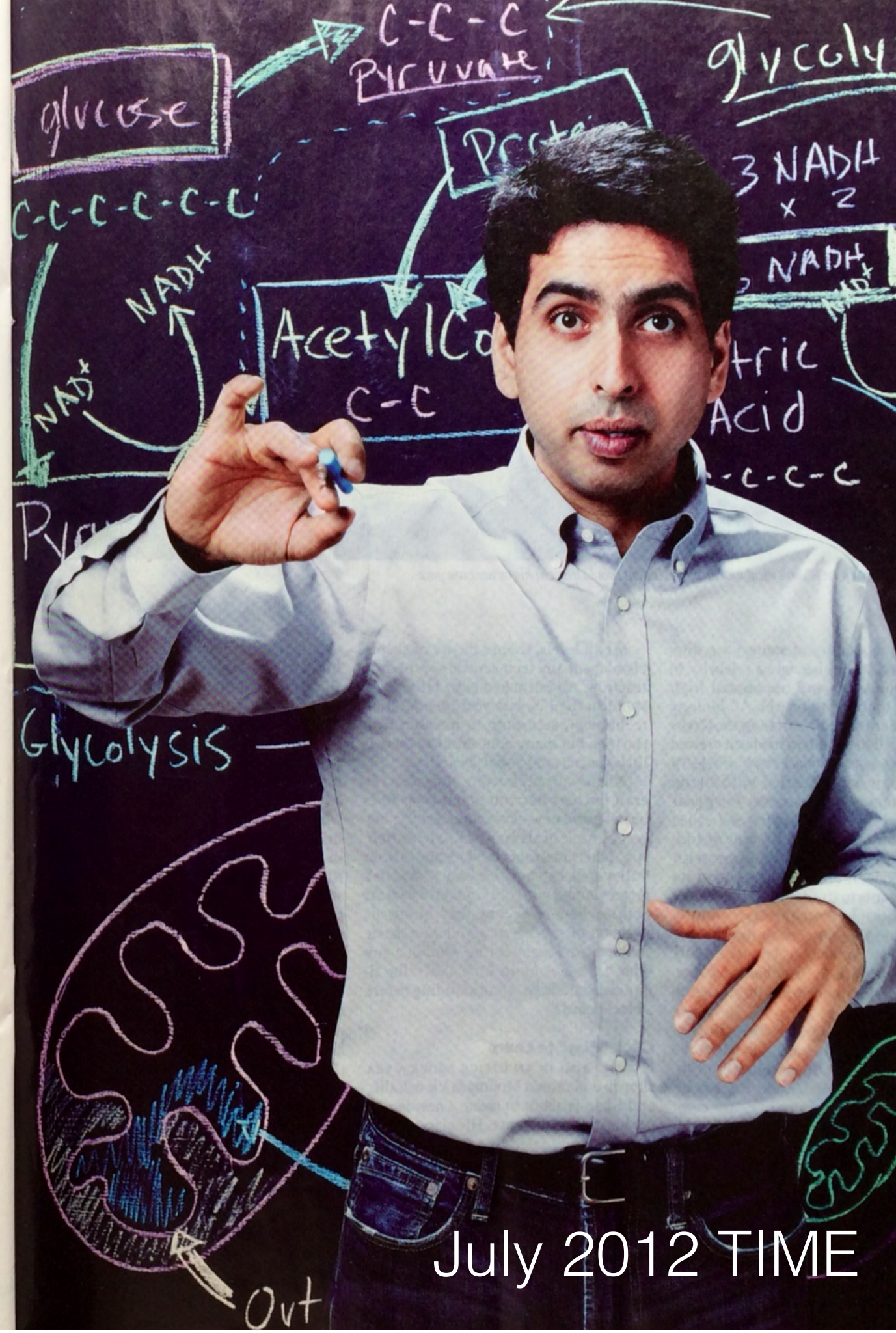
**F**IFTH-GRADERS AT EASTSIDE College Preparatory School in East Palo Alto, Calif., sit at their desks with netbooks. They're in the middle of a math lesson, listening as a teacher explains how to convert percentages to decimals. "If we get rid of the percent sign, we just have to move the decimal sign two places to the left," the instructor says. Pens scribble across notebooks.

Eleven thousand kilometers away in Accra, Ghana, students at the African School for Excellence are studying logarithms. Their teacher is the same one firing off math tips in California—both

groups of kids are learning by watching online videos. While the screen shows a march of equations and diagrams, the students never actually see the face of the lecturer. There's just a voice, deep, patient and unrehearsed—think NPR host crossed with Mister Rogers. His inflection rises at times to underscore a point or when he gets really excited. "Math is not just random things to memorize and regurgitate on a test next week," he says. "It's the purest way of describing the universe!"

The voice belongs to Salman Khan, a 35-year-old hedge-fund manager turned YouTube professor to millions around the world. Thanks to his Khan Academy,

Photograph by Jamie Chung for TIME



July 2012 TIME



right next to you explaining the  
as your own private tutor.  
the 11-min. video is uploaded,  
auses, checks his e-mail and runs  
his mental to-do list. There won't  
real break; Khan skips breakfast  
ch, preferring to subsist only on  
er during the day and to eat a day's  
of food at night. "A lion runs the  
when he is hungry," he says.

morning's macroeconomics  
aimed primarily at college-level  
s; other lessons range from basic  
n to calculus. There's also every-  
om astronomy and chemistry to  
er science and SAT prep. Once on-  
an's lectures become available to  
for free, at any time and any place.  
will call up one of his videos at home  
struggle through an assignment or  
for an exam, getting a better under-  
g of material their teachers have al-  
explained with their own classroom  
alks. That's fine with Khan. "That's  
got popular," he says.

Khan believes he's onto something  
igger—a buzzy concept educators  
e "flipped classroom." In Khan's  
here is no need for students to be  
into grades by age. Instead, they  
learn at their own pace, moving

## The Flipped Classroom

Turning homework and  
class time upside down



### Traditional Way

☀ Day: Teacher  
delivers lecture  
to class

☾ Night: Students  
complete  
homework  
exercises

### Khan's Way

☾ Night: Students  
receive instruc-  
tion from videos

☀ Day: Students  
do exercises  
while teacher  
helps those who  
are struggling

concepts as homework and then  
class to demonstrate their learning  
there would be no need for a teacher  
stand in front of the class and give  
ture ever again.

## Flipping 800 Years of Teaching

PEOPLE MAY NOT HAVE THOUGHT ABOUT  
much back in seventh-grade history  
they struggled to keep their eyes  
during a review of key Revolutionary  
battles, but the concept of a classroom  
which a teacher stands at the front  
to deliver a lesson goes back a long way. A  
way, in fact, to medieval universities  
14th century. Gutenberg and the printing  
press were still 100 years in the future  
and teachers were human textbooks.  
Even after it became possible to reproduce  
teaching materials, the lecture remained  
entrenched in the classroom setup.

Eventually new technologies arose  
to help teachers present information  
to students. In the beginning of the 20th  
century, early forms of the projector pro-  
jector. Thomas Edison to predict, "Books will  
be obsolete in schools. Scholars will be  
instructed through the eye." In the 1920s  
radios became prevalent in classrooms,  
allowing "schools of the air" to broadcast  
lessons to millions of American students.




Salman Khan:

# Let's use video to reinvent education

TED2011 · 20:27 · Filmed Mar 2011

Subtitles available in 42 languages

 View interactive transcript

Share  
this idea



3,377,859 Total  
views



Share this talk and  
track your influence!

Salman Khan talks about how and why he created the remarkable Khan Academy, a carefully structured series of educational videos offering complete curricula in math and, now, other subjects. He shows the power of interactive exercises, and calls for teachers to consider flipping the traditional classroom script — give students video lectures to watch at home, and do "homework" in the classroom with the teacher available to help.

## Related playlists & talks



Playlist  
**Re-imagining  
school**



Playlist  
**MOOCs 101**



THE NEXT AMAZON • HOLLYWOOD'S CHINA FIXER

NOVEMBER 19 • 2012 EDITION

# Forbes

SPECIAL ISSUE  
**IMPACT**

PIERRE OMIDYAR'S  
NEW CRUSADE

AMERICA'S  
BEST CHARITIES

KHAN ACADEMY'S  
**SAL KHAN**

"THERE ARE MUCH  
MORE PRODUCTIVE  
WAYS OF LEARNING  
EVERYTHING THAN  
SITTING IN LECTURES."

## THE \$1 TRILLION OPPORTUNITY

**NO FIELD OPERATES MORE INEFFICIENTLY THAN EDUCATION.**  
A NEW BREED OF DISRUPTORS IS FINALLY GOING TO FIX IT.  
HERE'S HOW TO JOIN THEM.

There are much more productive ways of learning everything than sitting in lectures.

Salman Khan

Let's try out

You only have to know one thing:

# You can learn anything

For free. For everyone. Forever.

Start learning now


Teachers, start here

Parents, start here

Learn more about #YouCanLearnAnything



# Knowledge Structure

 **KHANACADEMY**

Subjects ▾

About

Donate

Home

Math >

Science >

Economics and finance >

Arts and humanities >

Computing >

Test prep >

## Math

FUNDAMENTALS	HIGH SCHOOL AND BEYOND	
Early math	Algebra basics	Differential calculus
Arithmetic	Algebra I	Integral calculus
Pre-algebra	Geometry	Multivariable calculus
Basic geometry	Algebra II	Differential equations
	Trigonometry	Linear algebra
	Probability and statistics	Recreational math
	Precalculus	Math contests

# Can we learn from this?

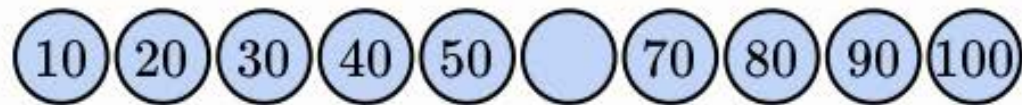
## Numbers to 100

Practice finding missing numbers in a list of numbers between 0 and 100.

Get the first 1 correct, or 5 in a row



Let's count by tens.



What number did we miss?

- ☒ 70
- ☐ 60
- ☐ 30

Instant feedback

Simple question

Text-based support

Scratch facilitate thinking

Video instruction support

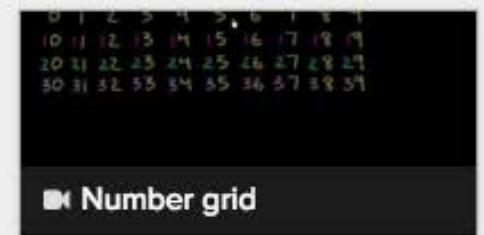
Answer

Check Answer

Show me how

I'd like a hint

Stuck? Watch a video.



Show scratchpad

Report a mistake in this question



# Why Flipping Your Class?

To boot up learning and teaching capacity

To gain time for active and engaging learning tasks (e.g. e-Learning) in day time lessons

To build up self-directed pre-learning habit of your students

To cater for learner's diversity

# Ask yourself before you flip

Do you have enough time to do the things you want in class?

Do you spend a significant amount of time lecturing?

Are you struggling to meet the diverse needs of learners?





Higher order  
thinking

e-Learning

Self-directed  
Pre-learning

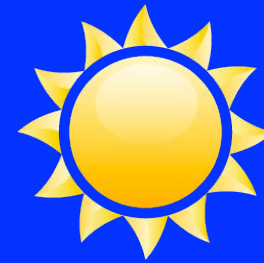
Learner's  
diversity

Flipping classroom



Student  
watch video  
to  
pre-learn

20 mins



Teacher  
follow-up  
responses

10 mins

Active learning / e-Learning /  
Higher order activity

30 mins

Flipping Classroom Framework



# Sources of video



Web

Abundant  
resources



eTV

100% match with  
curriculum



Self-made

Student  
friendly

- What To Watch
- My Channel
- My Subscriptions 99+
- History
- Watch Later 5

## PLAYLISTS

- Longman
- e-Learning (True Light)
- eAdmin
- ICT 選科系列
- More >

## SUBSCRIPTIONS

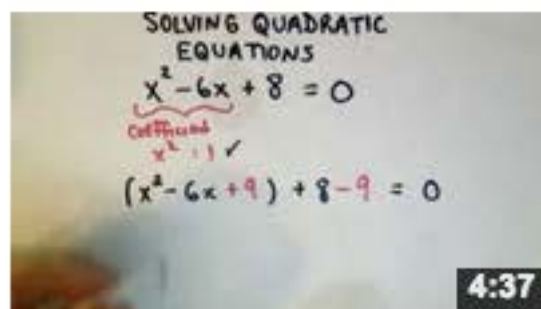
- Apple 1
- RandallBower
- 香港數碼學堂 The Hong...
- Edutopia 2
- More >

- Browse channels
- Manage subscriptions

Filters ▼

About 63,100 results

Some results have been removed because Safety Mode is enabled.



### Completing the Square - Solving Quadratic Equations

by patrickJMT • 5 years ago • 1,145,994 views

Need a LIVE tutor to help answer a question? Check out the people at <http://www.tutor.com/signup?>

HD



### ♥<sup>2</sup> How to Solve By Completing the Square (mathbff)

by mathbff • 6 months ago • 66,173 views

How to **Solve by Completing the Square**. MIT grad shows the easiest way to **complete the square** to **solve a quadratic equation**.

HD

CC



### Algebra - Completing the square

by yaymath • 1 year ago • 200,038 views

Hi Algebrinos! As we progress with our problem **solving** prowess, we include **solving** by using the nifty method titled, "**Completing** ...



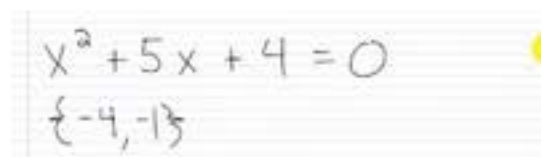
### Solving Quadratic Equations by Completing the Square

by Khan Academy • 4 years ago • 260,750 views

More free lessons at: <http://www.khanacademy.org/video?v=bNQY0z76M5A> **Solving Quadratic Equations by Completing the ...**

HD

CC



### Algebra I Help: Solving Quadratic Equations by Completing the Square I

by GreeneMath.com • 1 year ago • 8,586 views

<http://www.greenemath.com/> In this video, we learn how to **solve a quadratic equation**



# 香港小學四年級 因數 除數法 (HK Primary School Year 4 Factors Divide)

找出因數

20

① 乘法

$$1 \times 20 = 20$$

+

$$2 \times 10 = 20$$

$$3 \times \underline{\quad} = 20 \quad \times$$

$$\rightarrow 4 \times 5 = 20 \quad \checkmark$$

$$\rightarrow 5 \times \underline{\quad} = 20 \quad \checkmark$$

6 7 8  
因: 1, 2, 4, 5, 10, 20

② 除數法

20



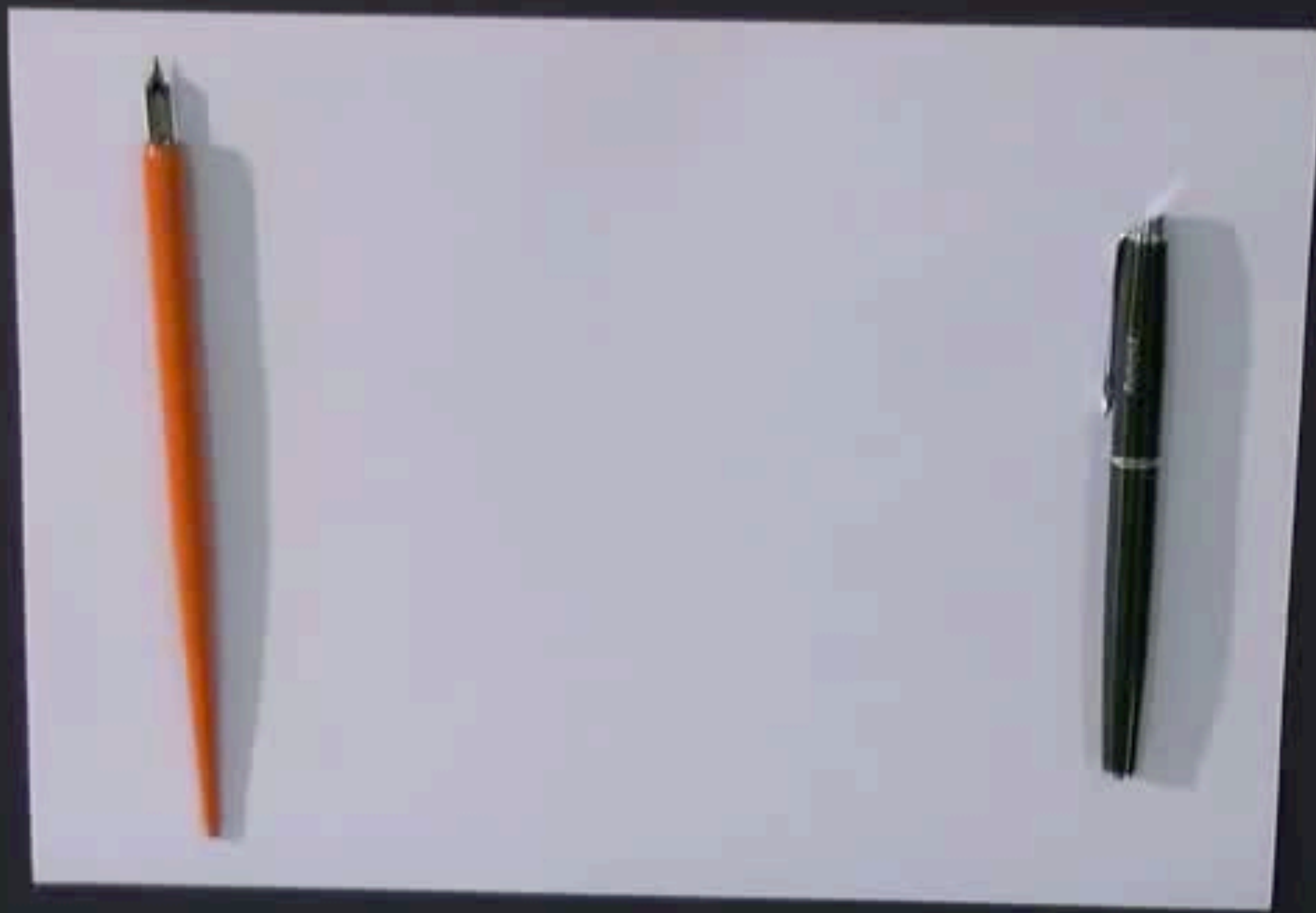
2014-2015年度  
二年級下學期

# 課題：形聲字

(二下第一冊 P. 62-63)



# 硬筆書法01 – 正確執筆方法 (高小 - 中文)



# 小學六年級數學科 數型 之 正方形數



## 教學資源庫 - 教育局教育電視

### 搜尋

- 關鍵字詞
- 圖片庫
- 教育局教育電視

### 回饋

- 評分及留言
- 新增關鍵字詞
- 協作夥伴 **新**


### 使用指南

- 搜尋資源
- 我的紀錄
- 常見問題
- 查詢
- 特別專題 **新**
- 新功能介紹 **新**

### 教育局教育電視

#### 最新消息

教育局教育電視小組開發了香港首個教育電視流動應用程式，旨在提供多元化的播放途徑，讓大家能夠隨時隨地觀看教育電視節目。

☒ 所有科目所有語言 [搜尋ETV](#)[重設](#)☐ [中國語文](#)☐ [English Language](#)☐ [數學](#)☐ [常識科](#)☐ [人文教育](#)☐ [科學科](#)☐ [普通話](#)☐ [特備節目](#)☐ [教師資源節目](#)☐ [教訊](#)☐ [學前教育](#)

### 最新教育電視 > 全部



#### Sequel of Probing into nano scale

科學科 > 中四至中六 > 高中科學專題節目

★★★★★ (0)



#### 科學探究

常識科 > 第二學習階段 (小四至小六) > 小四

★★★★★ (0)



#### 東天取經 (禮貌語)

普通話 > 第一學習階段 (小一至小三) > 小三

★★★★★ (0)



#### 文明築跡 (香港古建築遊賞)

特備節目 > 人文學科

★★★★★ (0)

Available on the  
**App Store**

GET IT ON

# Self made

Students like to hear your voice



Explain Everything



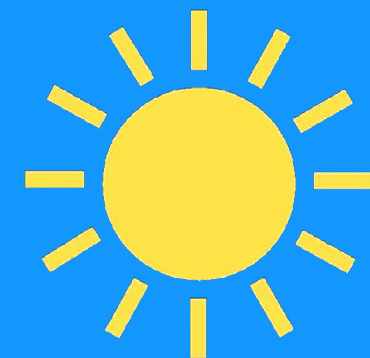
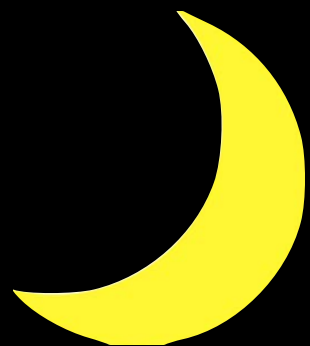
Mobile Phone  
Holder

# Look for platform for delivering videos

Simple questions are set to test student's basic understanding of pre-learning content.

Ask students to answer questions and watch video at home before actual lesson.





Student A



Student B



Student C



Teacher

# Personal Flipping Experience



▾ Course Options

**Materials** ▾

Updates

Gradebook

Badges

Attendance

Members

Analytics

**Access Code**

4SC8W-WMKSK

Reset

S3 Maths Ha sir (Flipped Learning): Term 1

## Tests/Quizzes

Notifications

(No grading period)

Add Test/Quiz

Bulk Edit

Export Question Stats



**1.1a Difference of Two Squares**

Prelearning



**1.1b Perfect Squares**

Prelearning



**1.2a Cross Method**

Prelearning



**1.2b Cross Method ( $ax^2+bx+c$ )**

Prelearning



**1.3 Difference and Sum of 2 Cubes**

Prelearning



**2.1 Indices Laws (Advance)**

Prelearning



**2.1 Indices Laws (Basic)**

Prelearning



**2.2 Scientific Notation**

Prelearning



**3.1 Simple Interest**

Prelearning



**3.2 Growth Factor**

Prelearning



**3.3 Decay Factor**

Prelearning



**3.4 Successive Changes**

Prelearning





# 1.2a Cross Method

Questions

Settings

Preview

Results

Comments

Questions 1-6 of 6 | Page 1 of 1

Question 1 (10 points)

1.2a Cross Method

$x^2 + 5x + 6 \leftarrow 2 \times 3$

$\uparrow$   
 $2 + 3$

$(x+2)(x+3)$   
 $= x^2 + 3x + 2x + 6$   
 $= x^2 + 5x + 6$

Taking out common factor  
Grouping like terms  
Difference of two squares  
Perfect squares

$x \quad +2$   
 $x \quad +3$

$x^2 \quad 3x + 2x \quad +6$

0:00 / 5:38

Factorize  $x^2 + 4x + 3$ .

- ☐ a  $(x + 2)^2$
- ☐ b  $(x - 1)(x - 3)$
- ☐ c  $(x + 1)(x + 3)$

Question 2 (10 points)

1.2a Example 12

$= (x+3)(x+5)$

Cross method

1. Decompose last term into 2 factors
2. Cross multiply the factors
3. Make up the middle x term

$x^2 - 8x$

$x \quad +3$   
 $x \quad +5$

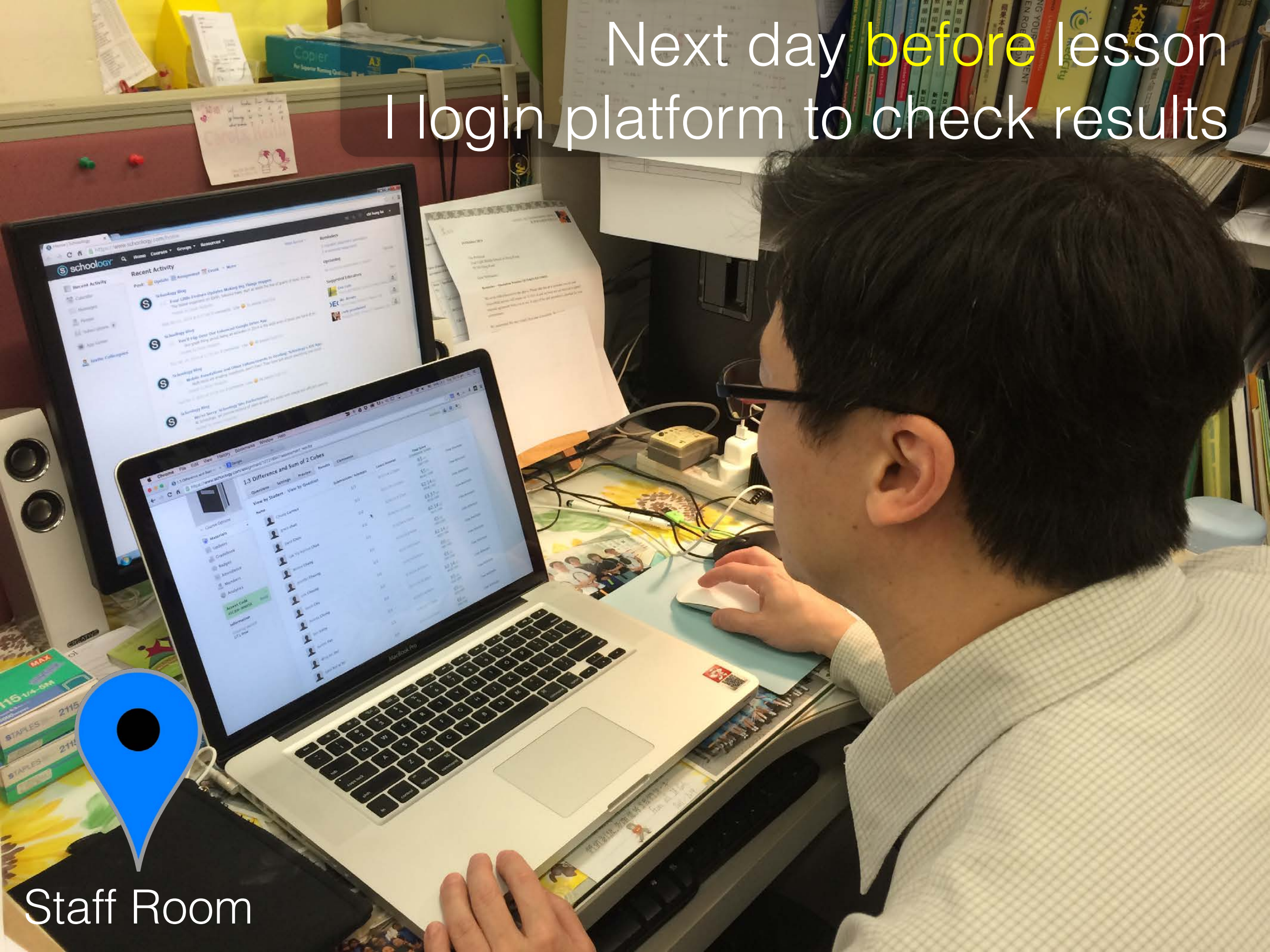
$15x + x = 16x$

Time left for this assessment:

28:49



Next day before lesson  
I login platform to check results



Staff Room



# Learning analytics collected by platform

## 1.1a Difference of Two Squares

Available



Questions





















Settings

Preview

Results

Comments

View by Student · [View by Question](#)

Name	Submissions/ Attempts	Latest Attempt	Final Score Gradebook Grade	
 	1/1	9/13/14 4:25pm	55/60 91.67/100 clear override	<a href="#">View Attempts</a>
 	1/1	9/02/14 9:12pm	45/60 75/100	<a href="#">View Attempts</a>
 	1/1	9/10/14 6:34pm	60/60 100/100	<a href="#">View Attempts</a>
 	1/1	9/03/14 5:50pm	60/60 100/100	<a href="#">View Attempts</a>
 	1/1	9/02/14 8:15pm	37.5/60 62.5/100	<a href="#">View Attempts</a>
 	1/1	9/02/14 9:21pm	60/60 100/100	<a href="#">View Attempts</a>
 	1/1	9/02/14 9:49pm	45/60 75/100	<a href="#">View Attempts</a>
 	1/1	9/02/14 8:14pm	10/60 16.67/100	<a href="#">View Attempts</a>
 	1/1	9/02/14 1:30pm	45/60 75/100	<a href="#">View Attempts</a>
 	1/1	9/02/14 4:57pm	60/60 100/100	<a href="#">View Attempts</a>



# Data drive pedagogy decision

Question	Answer stats	
<b>Question 3:</b> Factorize $9x^2 - 25y^2$ .  Multiple Choice – 10 points Points Earned – Most: 10 · Least: 0 · Avg: 9.17	<a href="#">See stats</a>  (3x – 5y) <sup>2</sup> : 3 (8.3%) (3x – 5y)(3x + 5y): 33 (91.7%)	<a href="#">View Responses</a>
<b>Question 4:</b> Factorize $4 - (x - y)^2$ .  Multiple Choice – 10 points Points Earned – Most: 10 · Least: 0 · Avg: 6.94	<a href="#">See stats</a>  (No answer): 1 (2.8%) (2 – x + y) <sup>2</sup> : 2 (5.6%) (4 – x + y)(4 + ...: 1 (2.8%) (2 – x – y)(2 + ...: 7 (19.4%) (2 – x + y)(2 + ...: 25 (69.4%)	<a href="#">View Responses</a>
<b>Question 5:</b> The spirit of factorization is to find as _ _ as possible.  Fill in the Blank – 5 points Points Earned – Most: 5 · Least: 0 · Avg: 4.51	<a href="#">See stats</a>  Blank 1: 30 (83.3%) Blank 2: 30 (83.3%)	<a href="#">View Responses</a>

Low correct %  
Explain in lesson

# Locate common mistakes / misconception

Factorize  $125x^3 - 27y^3$ .

$$125x^3 - 27y^3$$

$$= (\underline{5}x)^3 - (\underline{3}y)^3$$

$$= (\underline{5}x - \underline{3}y)(\underline{5} \underline{25}x^2 + \underline{15}xy + \underline{3} \underline{9}y^2)$$

Student response

Correct answer

 [Add Comment](#)

Factorize  $125x^3 - 27y^3$ .

$$125x^3 - 27y^3$$

$$= (\underline{5}x)^3 - (\underline{3}y)^3$$

$$= (\underline{5}x - \underline{3}y)(\underline{5} \underline{25}x^2 + \underline{30} \underline{15}xy + \underline{3} \underline{9}y^2)$$

 [Add Comment](#)

# Day Time Lesson

Round up class performance in pre-learning task last night

Design higher order tasks / problem solving / e-Learning / active learning / exploration tasks for students





Assign higher order problems for students to work out in groups

Teacher can walk around to support



Group  
discussion

$$x^2 + bx + 12$$

⑦

$$x^2 + 7x + 12$$

$$\begin{array}{r} x \quad 3 \\ x \quad 4 \\ \hline 7x \end{array}$$

$$x^2 + 7x + 12$$

13

$$\begin{array}{r} x \quad 1 \\ x \quad 12 \\ \hline 13x \end{array}$$

Design real life  
problem solving  
lesson activities





Design lesson  
which requires the  
use of technology



# Accessing Course Materials on iClass

portal.iclass.hk





登入名稱

密碼

開始



繁體中文



# Enrol Course: PX1536

加入課程

PX1536|



# HKU Flip Course



課程老師

HASIR Admin



修改

教師模式

課程代碼: PX1536

新增課題

## Session 1

★ 置頂 + 新增



資料夾



完成小測 – 翻轉課堂 123

Have a try!

## 動態

張貼告示



HKUFLIP01

進入活動

在 Session 1 的活動: 翻轉課堂 123 被修改

Fri, 25 Dec 2015, 2:56 PM

0 😊

回應

評論 (0)



## 1.2 Using “Screencast-o-matic” to create micro-lesson videos

# What is screencast?

Digital recording of computer screen output, often containing audio narration.

# Using “Screencast-o-matic”

Free / Paid

Available in Windows and MacOS

Google: [screencast-o-matic](#)





Welcome • Go Pro!

Got an account? | [login](#)

[Start Recording](#)

**Make it Easy**

[Help](#) | [Send Feedback](#)

One-click screen capture recording on Windows or Mac computers with no install for FREE!

Just click [Start Recording](#) to record.

Or you can download and install to run application on your Mac OSX 10.6 or later: [Download + Install](#)

**Watch a very quick demo**



**New! v2.0 Beta**

Stay up to date on latest news:

-or-

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Help spread the word about SOM

[Tweet](#) 4,156

[Like](#) 8.3k

[g+1](#) 2.8k

[Contact Us](#) for **licensing** options to use our screen recorder with your business.

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**Osmo**

FREE SHIPPING

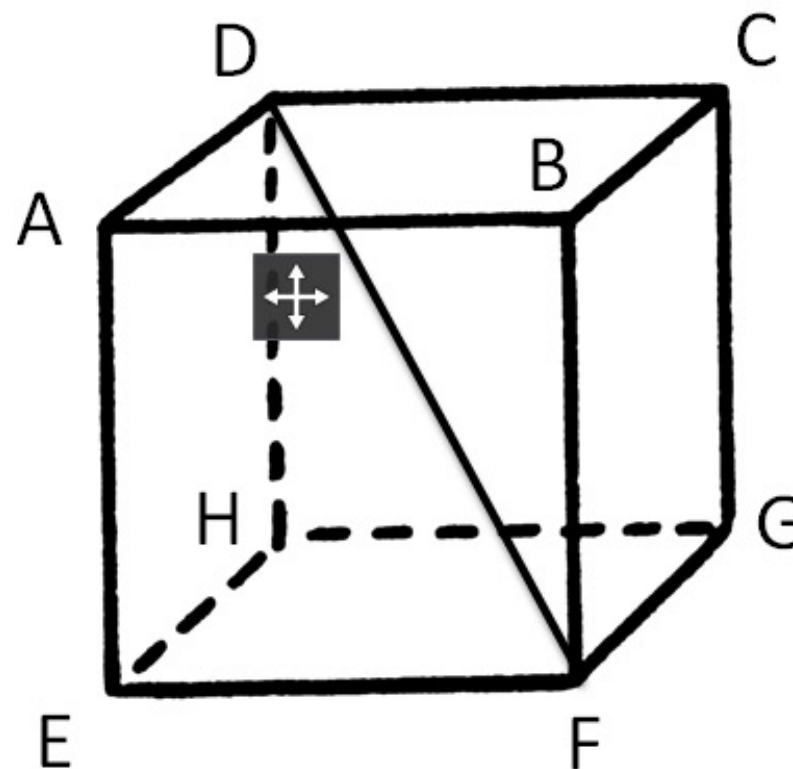
[Buy Now](#)



Let's try Screencast-o-matic

5 mins

## Angle between DF and plane EFGH



Really useful in  
recording video displayed on screen  
with audio

Record



Screen



Webcam



Both

☐ Microphone

☐ Computer Audio

Preferences...

REC Cancel

720p



To Recordings

Published: Recording #1

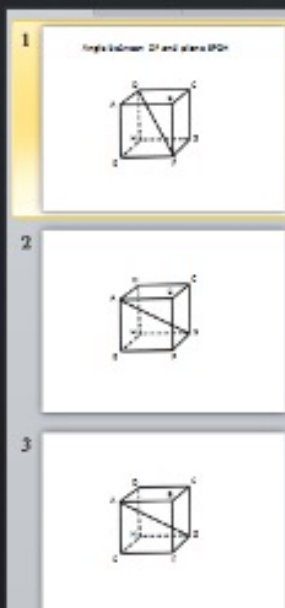
Enter Recording Name

Auto Saved  
3 minutes ago

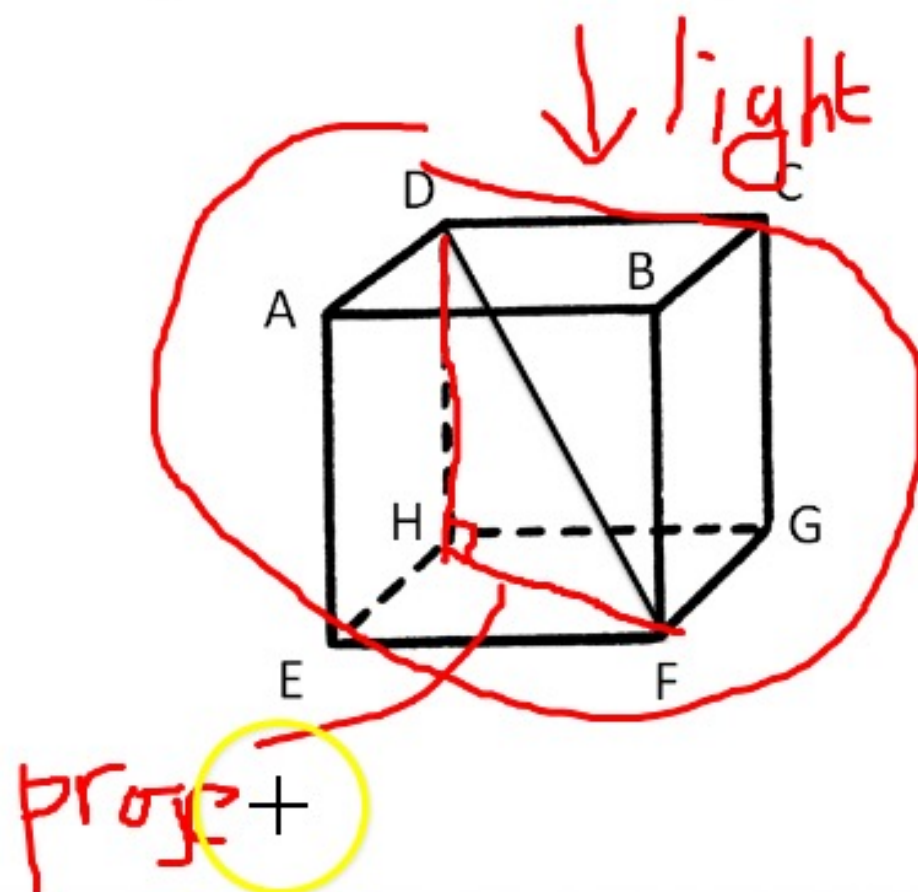


Publish

Zoom Preview



Angle between DF and plane EFGH



Canvas

HD for YouTube



Audio



No Audio

Show

☒ Cursor



0 2s 4s 6s 8s 10s 12s 14s 16s 18s 20s 22s 24s 26s 28s 30s 0:31.44 34s 36s 38s 40s 42s 44s 0:47



You are going to do flipping  
classroom, which subject, form  
and class would you begin with?

5 mins

# Considerations

Need of teacher vs need of students

Big class vs small class

Lower forms vs higher forms

$$time \rightarrow \infty, \frac{workload}{students} \rightarrow 0$$



# Screencasting Task

Think of a single topic concept or example of the lesson you are going to flip.

Use PowerPoint or other software to consolidate your ideas, points.

Create a Screencast with length less than 3 minutes by using appropriate annotations, highlights

# Alternative

Screencast-o-matic can be used to capture any video displayed on screen, therefore ...

If both speakers and microphone are on, audio can also be captured.

You can record only those video parts needed

香港教育城 **HKedCity**

閣下並未登入 [登入](#) [繁](#) [簡](#)

[成為會員](#) [忘記密碼](#) [教城搜尋器](#) [活動總覽](#) [學校地圖](#)

教學資源庫 - 教育局教育電視

香港教育城 > 教學資源庫 > 教育局

### Chinese Festivals and Culture

評分：

**ETV**

**Chinese Festivals and Culture**

01:22 19:39 HD

438 x 362 Fps Highest

SHOW ADVANCED

27 人讚好。

一般資料

簡介： This is a documentary pro Chinese festivals: the Mid-Autumn Festival a

**教育電視推介**

- Goodbye, Miss**  
★★★★★ (0)
- The Summer Plan**  
★★★★★ (0)
- Andy's Choice**  
★★★★★ (0)
- The Teen Files**  
★★★★★ (0)

**Screencast-o-matic**



Other ways to  
create micro-  
lesson videos

Universal  
mobile phone  
holder



# Why 3 minutes?

Limited attention span of watching  
on-line video

Precise explanation implies teacher  
have to focus on key points

Restructure  
concepts



Talk, write  
and record

# YouTube Video Length Statistics

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## **Length of Most Popular News Videos**

*Percentage of Top Five Videos Each Week: January 2011-March 2012*

One minute or less	28.8%
1:01 to 2 minutes	20.8
2:01 to 5 minutes	32.7
5:01 to 10 minutes	12.3
10:01 to 15 minutes	2.7
Longer than 15 minutes	2.7

N=260

PEW RESEARCH CENTER'S PROJECT FOR EXCELLENCE IN JOURNALISM

---

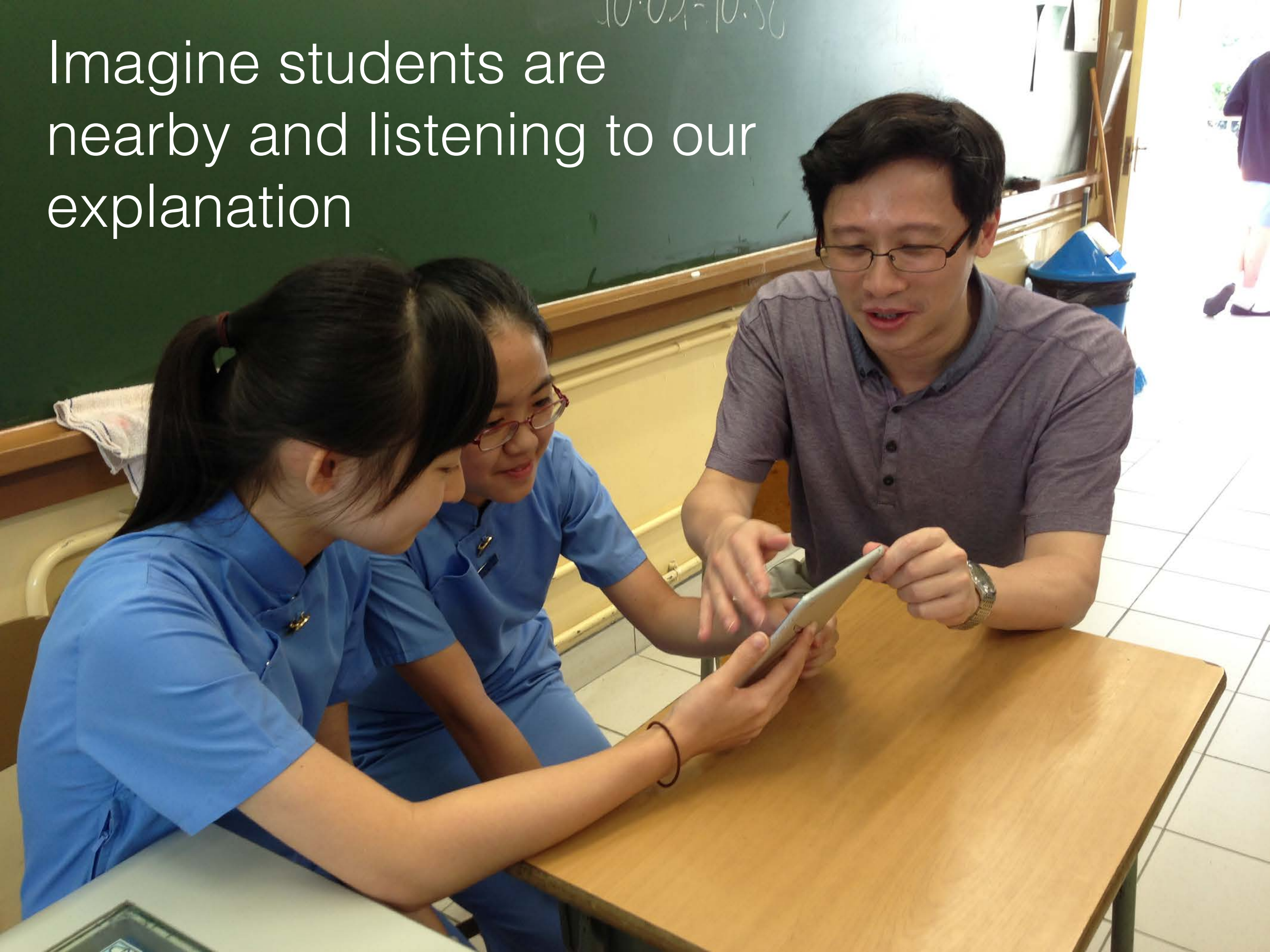


# Beginner's Tip

Think - Record - Pause

If your first trial is not good enough,  
welcome to redo until you are satisfied.

Imagine students are  
nearby and listening to our  
explanation



一拍無限睇

Record Once Watch Unlimited

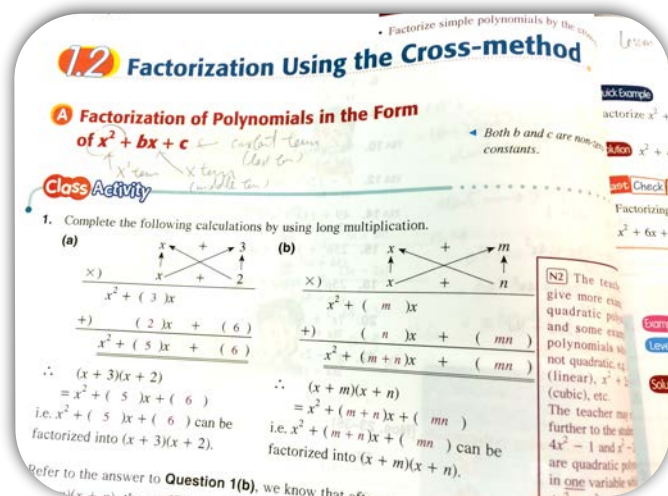
Can this make us feel better when doing recording?



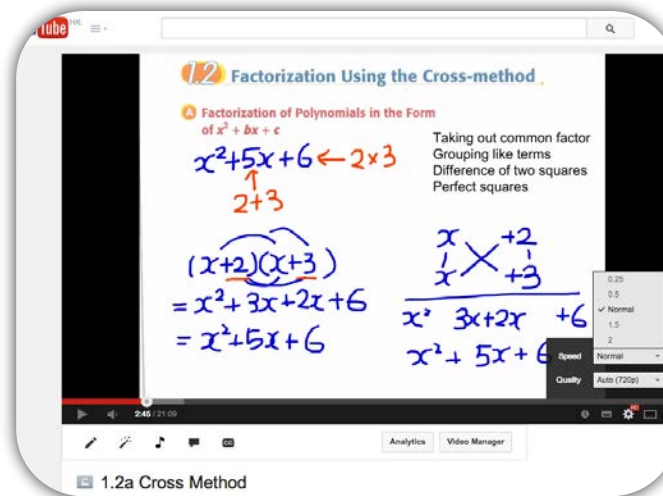
Let's start now!

30 minutes

# Comparison of different pre-learning / learning styles



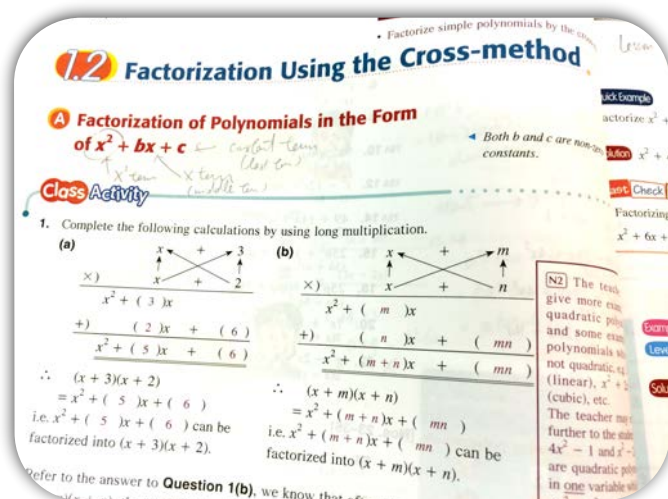
**Textbook**



**Watch video**



**Classroom**

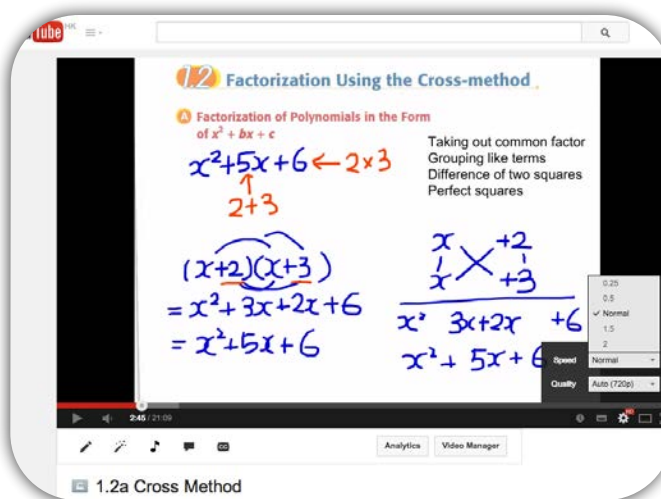


## Textbook

Paper &  
pencil

Pause / repeat  
2X / 0.25X

Anytime  
Anywhere



## Watch video

Multimedia

Pause / repeat  
2X / 0.25X

Anytime  
Anywhere



## Classroom

Multimedia

Impossible

same time  
same place



## 1.3 Uploading Videos and Peer Sharing

# Upload and Share Videos

Publish your micro-lesson video in screencast-o-matic to YouTube.

If you have

**You****Tube**  
Channel



Upload your  
lesson video

If you have

**Google**  
Account



Login **You****Tube**



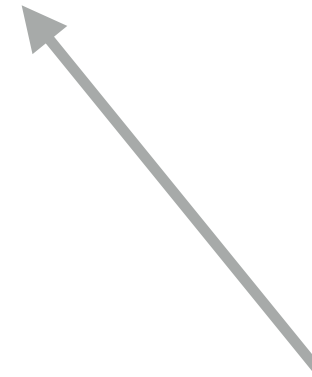
Create **You****Tube**  
your Channel

If you don't have

**Google**  
Account



Create **Google**  
your Account






# Create your own YouTube channel

## Set up your channel on YouTube

### How you'll appear



To use a business or other name, [click here](#).

Gender

Male ▾


Birthday ⓘ


May ▾24 ▾

Cancel

Continue

### What you'll get

 **A YouTube channel**  
Your name will appear on your YouTube channel along with your public videos and playlists. [Learn more.](#)

 **A Google+ profile**  
Your channel comes with a public Google+ profile. It helps friends find your videos and other content you share on Google. [Learn more.](#)

If you have a Google account, sign in YouTube and go to [create a channel](#).

# YouTube video privacy

Public  
公開

Anyone can  
search for  
and view

Unlisted  
非公開



Only people  
with link can  
view






Private  
私人


Only you and  
selected users  
can view











# Sharing your YouTube video link

**Back of System Unit**

 **henry ha**  Channel settings 3 views

 Add to  **Share**  More  0  0

**Share** **Embed** **Email** 

<http://youtu.be/ns0vdhql2vo>


☐ Start at:

**Published on 31 Dec 2014**

**Category** [Education](#)

**Licence** [Creative Commons Attribution licence \(reuse allowed\)](#)

**SHOW MORE**

 Copy this



# Suppressing Ad after video playing

Share **Embed** Email ×

```
<iframe width="480" height="360" src="https://www.youtube.com/embed/-MQGxe29ueU?rel=0" frameborder="0" allowfullscreen></iframe>
```

SHOW MORE

Video size: 480 × 360 ▼

☐

Show suggested videos when the video finishes

☒ Show player controls

☒ Show video title and player actions

☐ Enable privacy-enhanced mode [?]

By displaying YouTube videos on your site, you are agreeing to the [YouTube API terms of service](#).

SHOW LESS

Uncheck this

# Post the YouTube video link of your lesson video to iClass



Hand-in here

# Peer Sharing

Would you like to come out and share with the whole class about your

name, school, teaching subject and level  
why you choose this topic for creating  
video













# Creative Commons

Creative Commons licenses provide a standard way for content creators to grant someone else permission to use their work.

<http://creativecommons.org/licenses/>

# From “All Rights Reserved” to “Some Rights Reserved”

LICENSES	TERMS
	 <b>Attribution</b> Others can copy, distribute, display, perform and remix your work if they credit your name as requested by you
	
	 <b>No Derivative Works</b> Others can only copy, distribute, display or perform verbatim copies of your work
	 <b>Share Alike</b> Others can distribute your work only under a license identical to the one you have chosen for your work
	
	 <b>Non-Commercial</b> Others can copy, distribute, display, perform or remix your work but for non-commercial purposes only.

Home | Schoology x Videos - YouTube x

https://www.youtube.com/my\_videos?o=U

YouTube HK

Upload

3

Search videos

CREATOR STUDIO

DASHBOARD

VIDEO MANAGER

**Videos**

LIVE EVENTS

Playlists

Search History

Likes

COMMUNITY

CHANNEL

ANALYTICS

CREATE

Videos 1

Actions Add to

Watch Later

Create a new playlist

View: M

Hello!

按一下以新增

Arranging videos into playlists



# S4 UT1 Word Processing

by true light computer • 23 videos •

 Add a description

 Play all

 Share

 Playlist settings

Share the link of your  
playlist to students

Share

Embed

Email



<http://www.youtube.com/playlist?list=>

true light computer

0 Vanessa Lee

true light computer

## 1.4 Introduction of Different Means of Distributing Lesson Videos

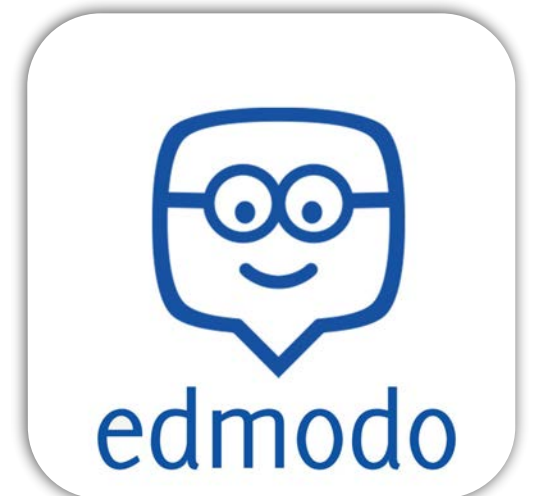
# Different Means of distributing lesson videos



QR Code  
(simple)



WhatsApp  
group or  
broadcast list  
(fit students' style)



LMS  
(requires account)

# Distribution video links through QR codes

Create a QR code for your micro-  
lesson video.

Test the QR code with any QR code  
scanning app on your smartphone  
or the iPad.



# Hello!

+

按一下以新增副標題



0:07 / 0:37



數據分析

影片管理員



## Recording #1



flipping classroom r



頻道設定

分享

Share

觀看次數：1



新增至



分享



更多



0



0

分享

嵌入

電子郵件



<http://youtu.be/ZrE6zdVxfUI>



開始時間：

0:07

# Google: QR code generator

QR Code Generator   Sign In   **Generate**   Scan   W


TYPE


- Free Text
- URL**
- Contact
- Phone Number
- SMS

<http://goo.gl/j9R3y6>

The short URL <http://goo.gl/j9R3y6> encoded in the QR Code redirects to <http://www.youtube.com/playlist?list=PLcFibs7VMZ3pGfQ88OQ4sb->

Static QR Code

**Save**   Share   Options   



Do you need to change the content of the QR Code after it has been printed? Or do you need statistics? [Sign In with Google](#) and convert your Code to a Dynamic QR Code.

QR code generated

Paste playlist link here

## Pre-learning Worksheet (備課工作紙)

1. Login <http://www.schoolology.com/> or scan the QR code using your smart phone, iPad or Tablet PC. This will lead you to the on-line quiz with explanation videos on Schoolology.
2. Work out the answers of the multiple choice questions in this pre-learning worksheet, in case you don't know how, watch the videos in Schoolology.
3. Input your answers in Schoolology to check your performance. In addition, I can also know it before the lesson.

1. Factorize  $x^3 - 1$ .

$$x^3 - 1 = (x \quad \quad 1)(x^2 \quad \quad x \quad \quad 1)$$

2. Factorize  $x^3 + 1$ .

$$x^3 + 1 = (x \quad \quad 1)(x^2 \quad \quad x \quad \quad 1)$$

3. The SOAP rule

$$a^3 - b^3 = (a \quad \quad b)(a^2 \quad \quad ab \quad \quad b^2)$$

$$a^3 + b^3 = (a \quad \quad b)(a^2 \quad \quad ab \quad \quad b^2)$$

4. Factorize  $27a^3 - 1$ .

☐ a  $(3a + 1)(9a^2 - 6a + 1)$

☐ b  $(3a + 1)(9a^2 + 6a + 1)$

☐ c  $(3a - 1)(9a^2 + 6a + 1)$

☐ d  $(3a - 1)(9a^2 - 6a + 1)$

5. Factorize  $125x^3 - 27y^3$ .

$$125x^3 - 27y^3$$

$$= (\quad \quad x)^3 - (\quad \quad y)^3$$

$$= (\quad \quad x - \quad \quad y)(\quad \quad x^2 + \quad \quad xy + \quad \quad y^2)$$



Link to video or on-line quiz

Space for student rough work

# Printed Pre-learning Worksheet

# Platform considerations



LMS



Distractions



# 1.5 Tips for Doing Screencasting and Preparation for session 2

# Most Common Mistakes in Screencasting

By [Andreas Zeitler](#)

🕒 December 9th, 2010

📌 [Screencasting](#)

💬 61 Comments

When people think about [how to start screencasting](#), they often forget that screencasting is not only a very interesting way of showing something quickly, comprehensibly and easily; it's also a way of advertising their products. It's a shame to see how many websites out there lack a beautiful looking screencast, as this can make products look *a lot* more attractive to potential customers.

Advertisement



What most hobby screencasters don't know, is that screencasting is not simply the act of *sitting down and recording the screen*; simple screen recording was something we did four to five years ago. Screencasts have a long history, starting from "I just record my screen" to the fancy product demos you see today. Nowadays, a screencast is almost necessary for start-ups and new products, especially in the tech business.

My career as a screencaster started a couple of years ago. By that time, I was already blogging; sitting in front of Ableton Live (which I found to be a very original new workflow), I asked myself: what would be the best way to show others what I'm doing? The answer was clear: to record my screen.

That same night, I started using Snapz Pro X. [My English was terrible](#) and it felt awkward to record this thing — then to re-record it about ten times. Since then I have recorded hundreds of screencasts, including for [Mac OS X Screencasts](#). Having gained a lot of experience, it's now time to share this experience with others.

Google search:  
Tips for doing  
screencast

# Common Mistakes

Use facial cameras wisely, if needed.

Leave the mouse pointer wherever it is on screen and don't use it as an extension of your hand.

Can we make watching our video a pleasurable experience?

Use a mind map to plan your recording?

Never make long videos, split it into 3 minutes sections.

# 1.6 Discussion of the Flipped Lesson Design



# Lesson Design

- How much content should I put in the pre-learning video? How would I use it before the lesson?
- How do I know whether students have pre-learn? If I use a platform, will I check it before lesson?
- What will I do with my students in the daytime lesson, if students have/have not pre-learned?

# 1.7 Flipped Classroom Examples

# 數學科的e-learning

平台	Edmodo	E-class
對象	p.5-p.6	p.1-p.4
用途	Flip-classroom Revision Quiz Enrichment	Revision Enrichment
備註:	輔以各種合適的apps 和google doc. 等等	

# Flip classroom

\*\*\*只翻轉簡單而重要的概念

\*\*\*把艱深的功課改為課堂討論



# Flip classroom

## ● 大數量估計

Me to  1516\_Math\_P5\_笛卡兒組

 Pin Post 

計時活動:

1. 一分鐘內估計出下面有多少個文字
2. 一分鐘內估計出圖中有多少輛汽車

在下面回應即算是完成功課 (可自行決定在下面還是明天回校解釋你的答案)

-----

----- ...

[Show Full Post](#)



# Flip classroom

- 圓的認識 – 畫圓

← → ↺ 🏠 <https://www.edmodo.com/home#/group?id=16017797> 🔍 🔑 ☆

🏠 📶 📖 🔍 Search posts, groups, users and more

6DU7趙榮陶 C. said Jan 12, 2016  
there's two video about the MJ, which one should I choose?

如何畫出正確的圓形

如何畫出正確的圓形

0:01 / 1:22

⚙️ YouTube 📺

形，視乎你在什

# Flip classroom

- 百分數 – 什麼是率



Teacher Ho Siu Fung to ■ 1516\_Math\_P6\_泰利斯組

MJ (百分數一)

Turned In (5)

Due Jan 18, 2016

請觀看以下短片。

<https://youtu.be/uz9qxQovqlE>

然後回答誰是本屆的世界足球先生，並說明原因。



百分數一 Math Journal

youtube.com

 Add to Library

# Enrichment

- 多位數增潤- 古代數字系統



Me to  1516\_Math\_P5\_笛卡兒組

 Pin Pos

請閱讀並完成P.3-5，如你有興趣挑戰自己，也可以把整份都閱讀完畢。

部份字詞解釋

1. hieroglyphics - 這裡解作石碑上的文字
2. fractions - 分數
3. identities - 等式 (即平日我們說的算式)
4. combersome - 麻煩
5. alternative method - 替代方法...

[Show Full Post](#)



[reading\\_early\\_egyptian\\_fr...ons\\_p\\_3\\_p\\_5\\_only\\_2.pdf](#)

PDF File





# Enrichment

- 統計圖- BMI 在小學生的應用情況分析



Me to  1516\_Math\_P5\_笛卡兒組

 Pin Post

剛剛已把權限更改完成，各位同學可自行決定如何利用這個excel 表。明天  
再作討論

<https://docs.google.com/spreadsheets/d/1IfNb...>

**BMI index for p.5 students in HKUGAPS - Google Sheets**

[docs.google.com](https://docs.google.com)

Like • 11 Replies • Share • Following

Nov 19, 20

# Revision

- 功課核對
- 課堂重溫等等

# Revision

- 分數除法



Me to ■ 1415\_Math\_P5\_笛卡兒組

Pin Post ▾

如同學未能掌握分數除法 除數和被除數的概念，請重溫此YOUTUBE 並溫習書P.17-19

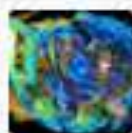


除數被除數  
youtube.com

Like (1) • 9 Replies • Share • Follow

Feb 5, 2015

Show more replies...



6C09蔡家瑜 C. said Feb 5, 2015

Usefull!



6A15梁凱晴 L. said Feb 5, 2015

thanks

# Revision

- 分數除法



Me to [1415\\_Math\\_P5\\_笛卡兒組](#)

Pin Post

請重溫今天所學。



[單元八\\_分數除法\\_分數除以整數、整數除以分數](#)  
[youtube.com](#)

Like (3) • 20 Replies • Share • Follow

Jan 27, 2015

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6D05陳思瑋 C. said Feb 3, 2015

THIS MIGHT HELP A BIT.....