



CCC Ming Kei College

「你今日做咗MC未？」 恆常數學評估的力量

中華基督教會銘基書院
數學科科主任 黃永能先生

流程簡介



THREE-YEAR SCHOOL DEVELOPMENT PLAN 2021-2024

Major Concern 1: To fully develop students' academic potential for higher level of attainment through optimization of teaching strategies, structured learning programmes and promotion of self-directed learning.

Targets / Intended Outcomes	Strategies	Time Scale			Coordinating Teams
		21/22	22/23	23/24	
1.1 To adopt the Knowledge-Building Model as the pedagogical model to promote self-directed learning and teaching	(i) Activate students' prior knowledge through pre-lesson preparation for effective classroom learning and teaching.	✓	✓	✓	VP (Teaching & Learning) Subject Departments SDC
	(ii) Design lessons which maximize student-student and teacher-student interaction to co-construct knowledge and develop a self-directed community of learners.	✓	✓	✓	
1.2 To maximize the use of information technology to enhance learning and teaching effectiveness	(i) Facilitate pre-lesson preparation, interaction and participation in class through e-learning tools, apps and platforms.	✓	✓	✓	VP (Teaching & Learning) Subject Departments ITC
	(ii) Provide opportunities to learn beyond the limitations of time and space.	✓	✓	✓	VP (School Administration) Subject Departments ITC

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計劃起源

1 每日一篇

1 幼稚園閱讀

暑期活動

每日一詞

何教授教室

公告板

繳費系統

本學期結束日期：6月15日
注意：6月不設補讀
網站於6月30日停止登入
新學期開始日期：10月3日

每日一篇

申請獎狀

暑期中文 每日一篇

暑期英文 每日一篇

LOGIN

學校編號

用戶編號

用戶密碼

何萬貫教授於2002年在香港中文大學創辦「每日一篇」
策劃及顧問：何萬貫教授
新領域教育研究有限公司
電話：2646 9282 或 93898914（可收Whatsapp） 傳真：2646-9221
電郵：new123education@gmail.com

何萬貫（2023年7月3日）。〈每日一篇〉。取自<http://www.prof-ho.com/reading/>

計劃起源

- 一、幫助中小學生養成閱讀的**習慣**
 - 二、幫助中小學生掌握閱讀的**策略**
 - 三、幫助中小學生掌握好閱讀**速度**
 - 四、幫助學生增廣**見聞**
- 「人要在走路中學會走路，在游泳中學會游泳。事實證明，能力的訓練，必須反覆進行才有效」

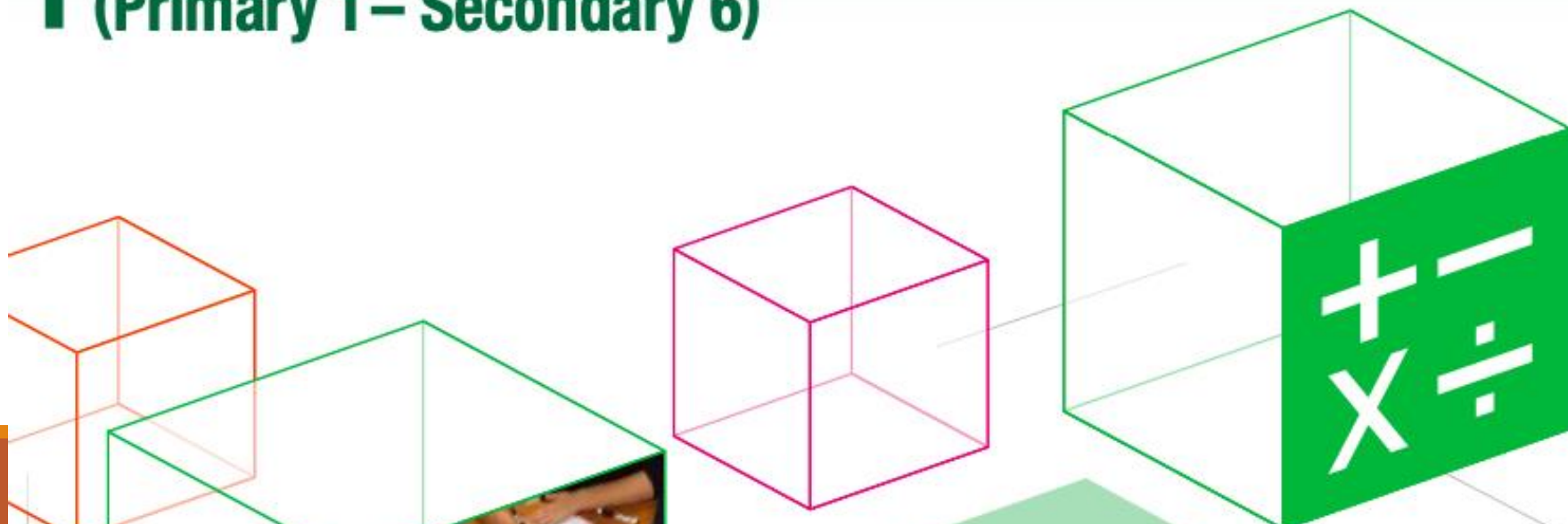
計劃起源

- 一、幫助學生養成每天「做數」的習慣
 - 二、幫助學生掌握作答多項選擇題（MC）的策略
 - 三、幫助學生掌握好作答多項選擇題（MC）速度
 - 四、幫助學生增廣見聞（題型的深度、廣度）
-
- 「人要在走路中學會走路，在游泳中學會游泳。事實證明，能力的訓練，必須反覆進行才有效」

計劃起源

Mathematics Education

Key Learning Area Curriculum Guide
(Primary 1 – Secondary 6)



計劃起源

...arranging the learning sequence so that students learn all strands **spirally** across year levels... it is necessary to review the essential topics regularly. The **spiral approach** assists students to refresh their knowledge.



The Curriculum Development Council (2017). Mathematics Education Key Learning Area Curriculum Guide (Primary 1– Secondary 6).
https://www.edb.gov.hk/attachment/en/curriculumdevelopment/kla/ma/curr/ME_KLACG_eng_2017_12_08.pdf

圖片來源：<https://www.quora.com/What-is-the-meaning-of-spiraling-curriculum>

計劃起源

To provide consolidation exercise to S4-S6 students using e-learning platform

Consolidation exercises are given for each teaching topic



To provide daily MC exercise to S4-S5 students using the e-learning platform

5 questions from past paper are given every day from Monday to Friday

具體執行細節

Online Question Bank

Mathematics

Switch to Student Mode Options

Filter

Year: 2022 – 2023 From: Select filterable Status: Select filterable Type: Select filterable

Paper Title

Sort By: End Time, ascending

26/9 Daily MC / Myself

Submission: 200 / 238

Test Completed

Start Time: 2022-09-26 00:00

End Time: 2022-09-27 00:00

Recall

Report

Share

27/9 Daily MC / Myself

Submission: 207 / 238

Test Completed

Start Time: 2022-09-27 00:00

End Time: 2022-09-28 00:00

Recall

Report

Share

具體執行細節

Online Question Bank

Mathematics

Switch to Student Mode Options

Filter

Year: 2022 – 2023 From: Select filterable Status: Select filterable Type: Select filterable

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End Time: 2022-09-28 00:00

Recall

Report

Share

具體執行細節

Question 1 / 5

Print



The cost of a toy is $x\%$ lower than its selling price. After selling the toy, the percentage profit is 25% . Find x .

- A 20
- B 25
- C 75
- D 80

Information

Author: HKEAA
Level of Difficulty: Easy
Topic: Percentages, Rate and ratio, Variations, Estimation
Language: English(Bilingual)
Remarks: 2020 No.9

Access Right

School

具體執行細節

Question 2 / 5

 Print



A sum of \$65 000 is deposited at an interest rate of 7% per annum for 8 years, compounded quarterly. Find the amount correct to the nearest dollar.

- A \$101 400
- B \$111 682
- C \$113 244
- D \$113 609

Information

Author: HKEAA
Level of Difficulty: Easy
Topic: Percentages, Rate and ratio, Variations, Estimation
Language: English(Bilingual)
Remarks: 2019 No.11

Access Right

School

具體執行細節

Question 3 / 5

 Print



If x and y are non-zero numbers such that $(3y - 4x) : (2x + y) = 5 : 6$, then $x : y =$

- A 7 : 8 .
- B 8 : 29 .
- C 9 : 32 .
- D 13 : 34 .

Information

Author: HKEAA

Level of Difficulty: Easy

Topic: Percentages, Rate and ratio, Variations, Estimation

Language: English(Bilingual)

Remarks: 2016 No.11

Access Right

School

具體執行細節

Mathematics

- > All Topics (1413) **14 / 14**
- ∨ All Authors **1 / 4**
 - HKEAA
 - MERS
 - HKEP
 - Educational Publishing House Limited
- ∨ All Level **1 / 3**
 - Easy
 - Normal
 - Hard

Question 1 / 5  Published Before

具體執行細節



A letter is taken from the word 'TUTORIAL'. What is the probability of getting a 'T'?

A $\frac{1}{4}$

B $\frac{1}{5}$

C $\frac{1}{8}$

D $\frac{2}{9}$

Solution

Possible outcomes: {T, U, T, O, R, I, A, L}

Favourable outcomes: {T, T}

$$\begin{aligned} P(\text{getting a 'T'}) &= \frac{2}{8} \\ &= \frac{1}{4} \end{aligned}$$

Information

Author: HKEP

Level of Difficulty: Easy

Topic: Probability

Language: English(Bilingual)

Remarks: 2010 No.284

Access Right

Free

具體執行細節

Available Time

Start Time:



2022-09-13



00:00

End Time:



2022-09-14



00:00

Answer Setting

Time Allowed
(Minutes):

0



Unlimited

Suggestion: 9 Minutes

Mandatory:



Yes



No

Random:



Question Order



Choice Order

Paper Setting

Type: ?



Test



Exercise

Student Can View
Report:



After Paper End



After Paper Submit

具體執行細節

Question 1 / 5



1



2



3



4



5



$$(2x - 3)(x^2 + 3x - 2) \equiv$$

Correct Answer

A $2x^3 + 3x^2 + 5x - 6$.

B $2x^3 + 3x^2 + 5x + 6$.

C $2x^3 + 3x^2 - 13x - 6$.

具體執行細節

Online Question Bank

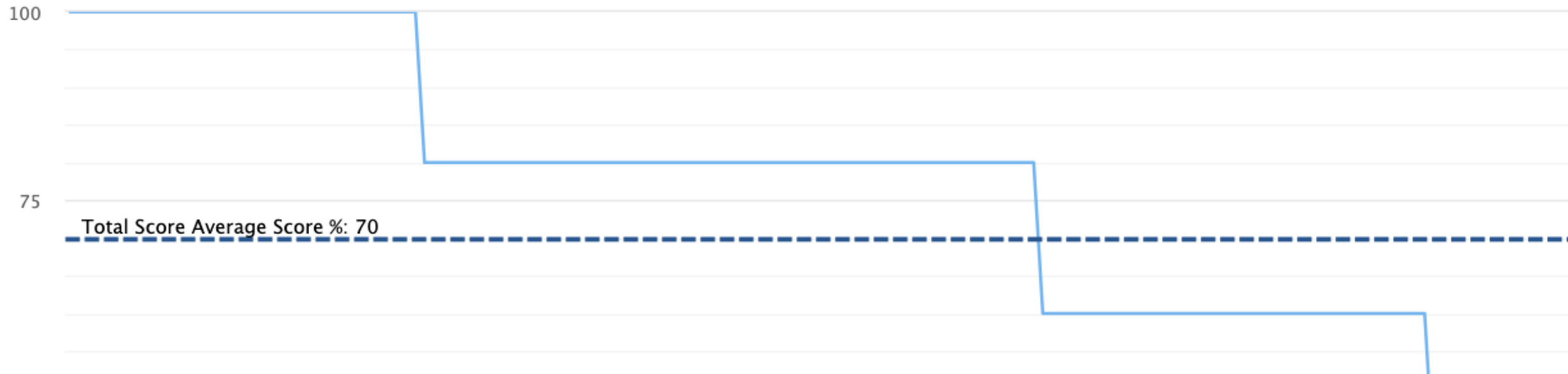
Score Analysis

Topic Analysis

Level of Difficulty Analysis

Question Analysis

Students' Total Score Comparison



具體執行細節

			36	00:06:18	5/5	100
			37	00:06:29	5/5	100
			38	00:06:52	5/5	100
			39	00:07:02	5/5	100
			40	00:07:05	5/5	100
			41	00:07:06	5/5	100
			42	00:07:08	5/5	100
			43	00:07:11	5/5	100



具體執行細節

[Score Analysis](#)[Topic Analysis](#)[Level of Difficulty Analysis](#)[Question Analysis](#)

Table Options ▾

 Download

Paper Question No.	Student Correctness	HKEAA Correctness	Author	Package	Year	Question No.	Topic	Level of Difficulty	Type
1	46	46	HKEAA	HKEAA Mathematics Public Exam Past Paper (HKCEE & DSE)	2020	9	Percentages, Rate and ratio, Variations, Estimation	Easy	MC
2	74	79	HKEAA	HKEAA Mathematics Public Exam Past Paper (HKCEE & DSE)	2019	11	Percentages, Rate and ratio, Variations, Estimation	Easy	MC
3	80	81	HKEAA	HKEAA Mathematics Public Exam Past	2016	11	Percentages, Rate and ratio, Variations,	Easy	MC

具體執行細節

1. 實體參考書
2. 楊老師
3. HKDSE資源APP

Score Analysis

Topic Analysis

Level of Difficulty Analysis

Question Analysis

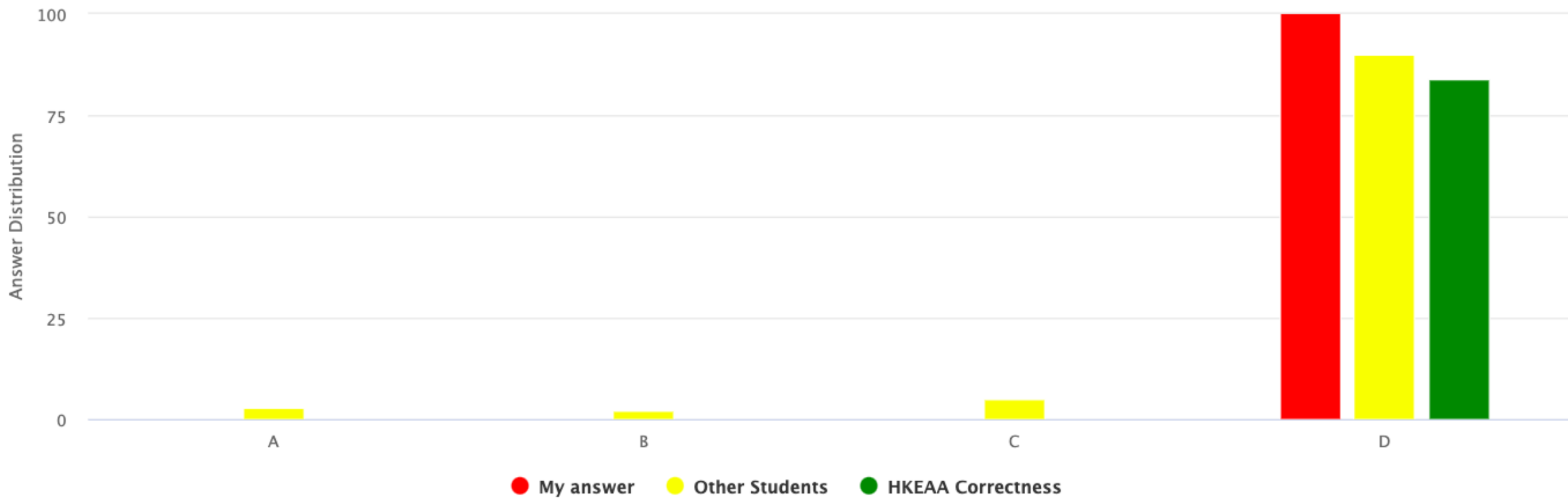
Table Options ▾

Download

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2	74	79	HKEAA	HKEAA Mathematics Public Exam Past Paper (HKCEE & DSE)	2019	11	Percentages, Rate and ratio, Variations, Estimation	Easy	MC
3	80	81	HKEAA	HKEAA Mathematics Public Exam Past	2016	11	Percentages, Rate and ratio, Variations,	Easy	MC

具體執行細節

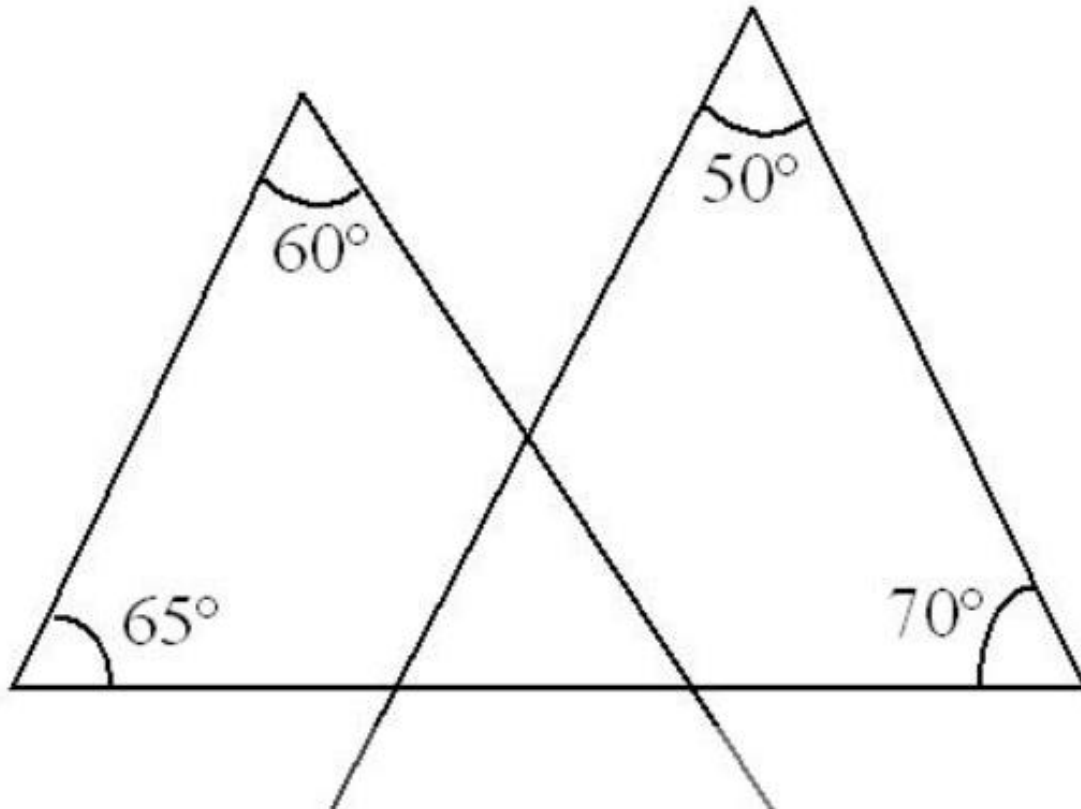
Answer Distribution



具體執行細節



In the figure, $x =$

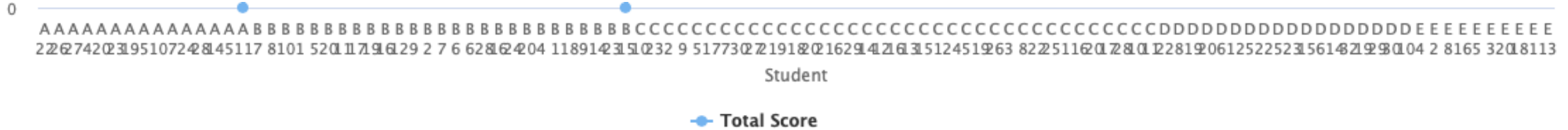


BYOD

- screen capture
- apple pencil



具體執行細節



Remarks: students who have not submitted the paper or awaiting manual marking are excluded from the analysis charts above and their records are dimmed in the table.

Table Options  Download

Class	Class No.	Student Name	Ranking	Answer Time	Correctness	Score (%)
			3	00:04:21	5/5	100
			39	00:00:51	4/5	80
			43	00:05:35	4/5	80

具體執行細節

6		0919	0920	0921	0922
Score	SA	76.5	69.5	65.3	73
Score	Mth1	98.1	93	92.7	88
Score	5C	89	85.2	85.3	74.3
Score	5D	87.4	77.5	74.7	81.1
Score	Mth2	72.5	71.8	65.3	69.3
Ans Rate	SA	77%	86%	86%	91%
Ans Rate	Mth1	91%	100%	96%	87%
Ans Rate	5C	83%	96%	79%	88%
Ans Rate	5D	83%	70%	83%	83%
Ans Rate	Mth2	89%	94%	83%	83%

具體執行細節

No.	Eng_Name	C_Name	Sex	Attempts	Avg			0510	0511	0512	0515	0516
			M	77	55.6			60	60	60	-	80
			M	76	87.9			100	100	100	60	100
			M	55	28.7			20	100	100	-	-
			M	76	73.4			60	100	100	80	100
			M	75	84.8			80	100	100	100	100
			M	68	68.5			80	80	80	40	100
			F	76	83.2			80	100	100	80	100
			F	77	75.8			60	80	80	80	60
			F	78	94.6			100	100	100	80	100
			F	67	46.6			40	20	20	60	40
			F	79	79			100	100	100	80	60
			F	74	72.4			100	80	80	80	80
			F	74	51.1			0	100	100	80	40
			F	76	67.6			60	60	60	100	40
			F	75	85.9			80	80	80	40	100

具體執行細節

- 獎勵機制 / 提醒機制
- 配合訓導委員會計劃
- 一周完成獲貼紙一張
- 一周平均答對80%以上獲貼紙一張
- 集齊10張貼紙可獲禮物一份或取消遲到紀錄一次

成效檢討

- 整個學年間，每位同學平均做了超過100次MC，即500題以上。
- 中五下學期考試（與DSE份量相等）：
 - 平均分比往年上升約10%
 - 其中卷二更上升約20%
- 中四下學期考試：
 - 平均分比往年上升約7%
 - 其中卷二更上升約11%

成效檢討

- 同學分享
- 唐淑明同學
- 黃嘉兒同學

謝謝