Using Online Teaching Platforms to Enhance Students' Independent Learning in Mathematics

運用電子教學平台提升學生自主學習數學的素養

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鄭文健老師

Po Leung Kuk No.1 W. H. Cheung College

保良局第一張永慶中學

Po Leung Kuk No.1 W. H. Cheung College

保良局第一張永慶中 學

- It was the first school established by Po Leung Kuk in 1971, and was named Po Leung Kuk C.F.A. No. 1 College (Chinese: 保良局總理聯 誼會第一中學)
- It located at Po Kong Village Road, Tsz Wan Shan, Wong Tai Sin







OneNote的功能:

- 多平台支援:可在Windows、 Mac、iOS和Android等多個平台上 使用。
- 多媒體筆記:可以插入文字、圖片、手寫筆記、音訊和視訊等。
- 筆記組織:提供分頁、節、筆記本和筆記本組等組織工具。
- 協作功能:可以與他人共享筆記本和筆記,並進行即時協作。

- 學生評估資料庫(STAR)是一個線上評估平台。
- 載於香港教育城網站內。

https://star.hkedcity.net/

- 內容涵蓋從小學一年級到中學三年級的中文、英語和數學。
- 費用全免。
- 提供評估報告,可以利用這些報告來回顧學生的學習進展。

電子教學的「天時、地利、人和」

天時:數位化時代和全球疫情推動了電子教 學的發展和實施。

地利:穩定的互聯網連接、適當的設備和軟體工具為電子教學提供了必要的基礎設施。

人和:教師具備技術能力,學生和家長接受和參與,共同促進了電子教學的成功實施。



(地利) 電子教學的設備



平板電腦



互動式白板



投影機/顯示器



數位筆(TABLET PENCIL)



互聯網連接

(人和) 電子教學的持份者

• 教師: 教師是電子教學的關鍵角色。

• 學生: 適應和參與電子教學的方式。

• 家長:理解和支持孩子參與電子教學的方式。

• 資訊科技員TSS:提供技術支援、研究電子教學平台。



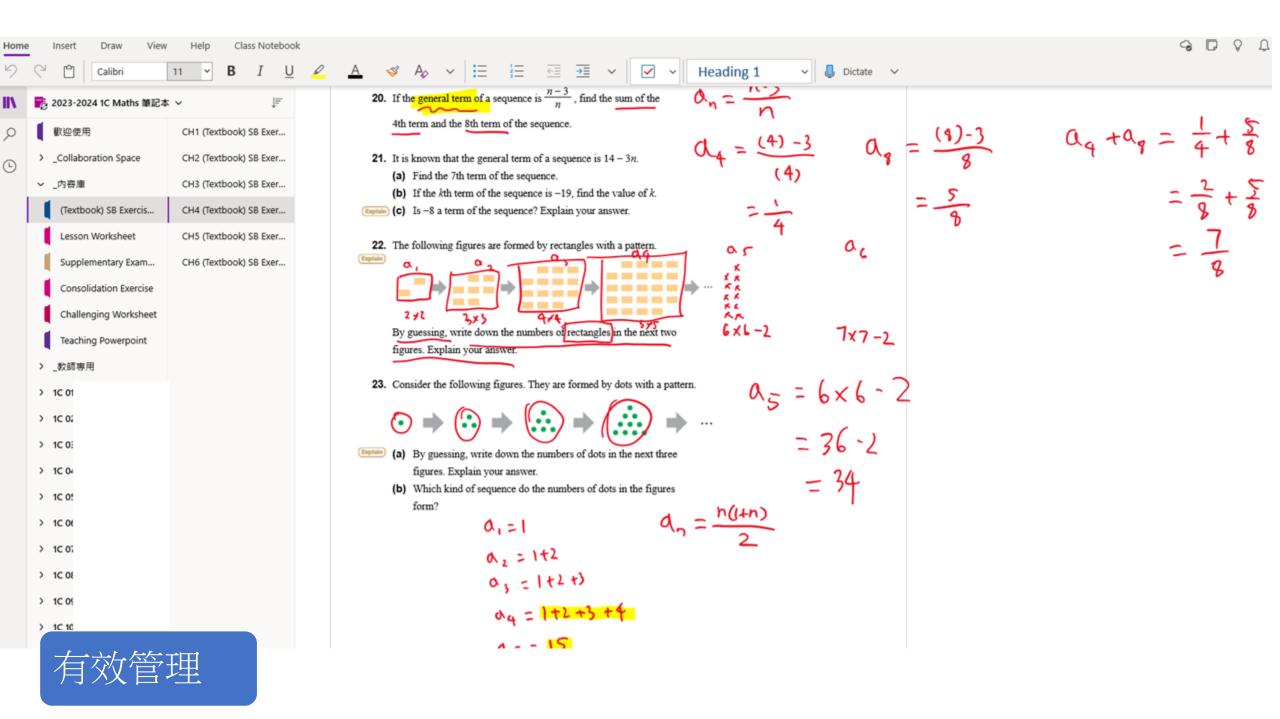
不同的筆記軟件

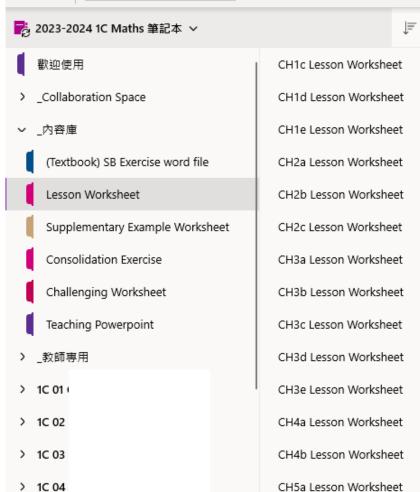
- Good notes (Personal)
- Notability (Personal)
- OneNote (Personal, Classroom)











CH5b Lesson Worksheet

CH5c Lesson Worksheet

CH5d Lesson Worksheet

CH6a Lesson Worksheet

CH6b Lesson Worksheet

> 1C 05

> 1C 06

> 1C 07

> 1C 08

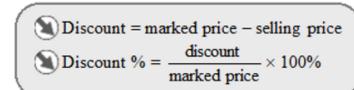
Tam e: ______()

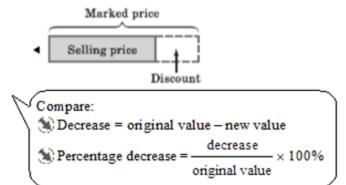
Lesson Worksheet 5C

(Refer to Book 1A §5.3A

Intensive Version

5.3A Discount





I. Complete the table below.

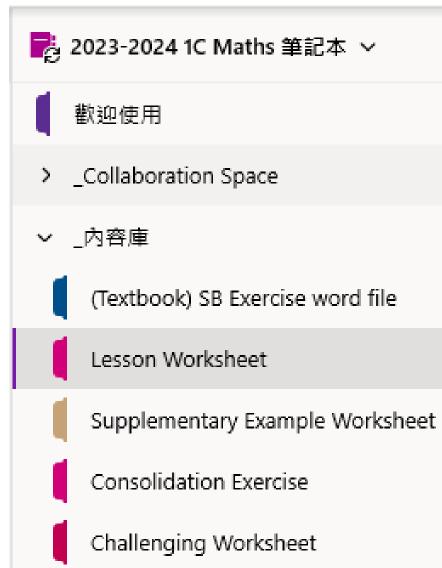
	Marked price	Selling price	Discount	Discount %
(a)	\$70	\$49	21	70 1 1009
(b)	\$52	13	\$39	39 X100%
(c)	160	\$136	\$24	24 X100%

⊕ Ex 5C 1, 2, 3(c), (d)

Example 1 Level 1

The marked price of a headphone is \$500, and it is sold for \$200. Find the discount per cent

Instant Drill 1
The marked price of a hat is \$60, and it is sold for \$54. Find the discount per cent



Teaching Powerpoint



CH1c Lesson Worksheet

CH1d Lesson Worksheet

CH1e Lesson Worksheet

CH2a Lesson Worksheet

CH2b Lesson Worksheet

CH2c Lesson Worksheet

CH3a Lesson Worksheet

CH3b Lesson Worksheet

CH3c Lesson Worksheet

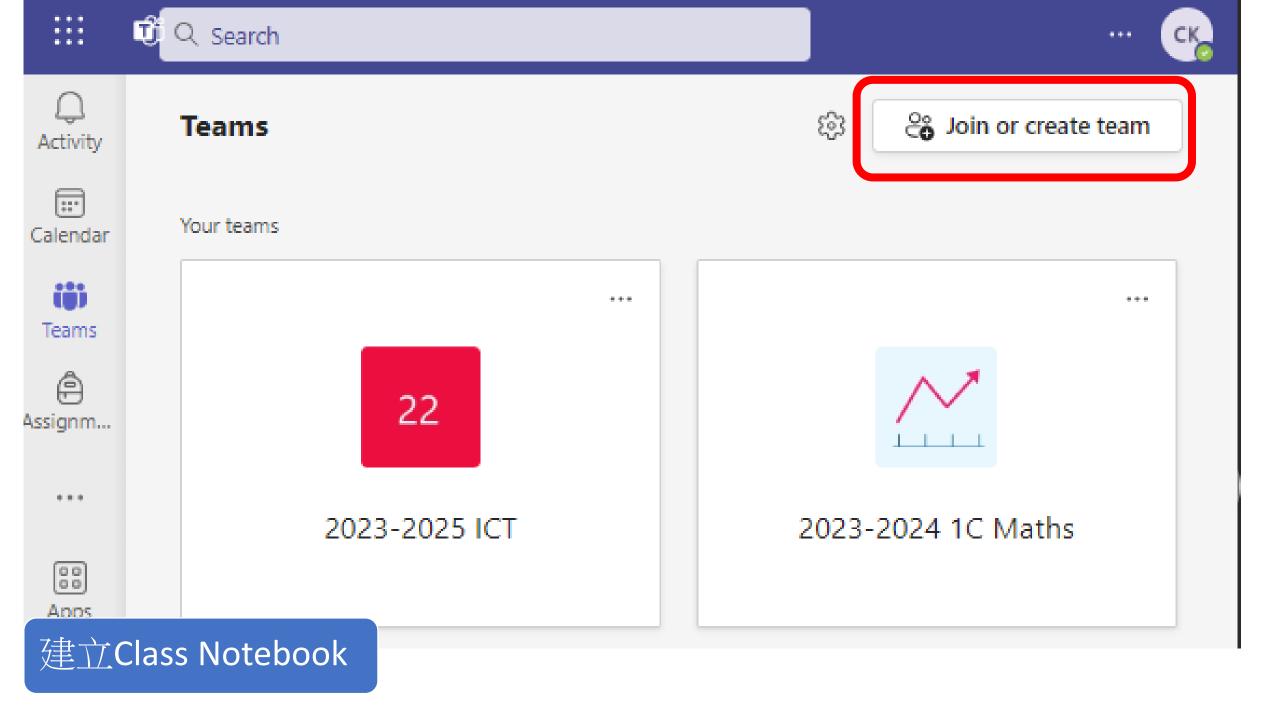
CH3d Lesson Worksheet

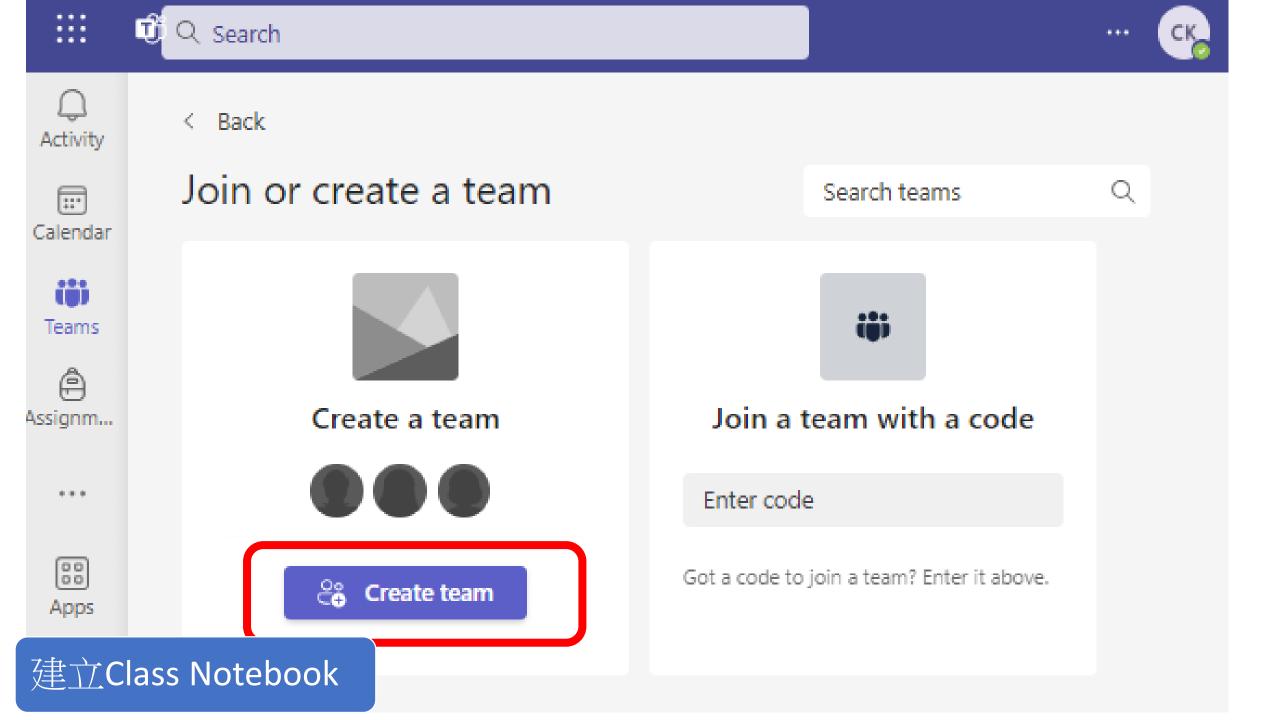
有效管理

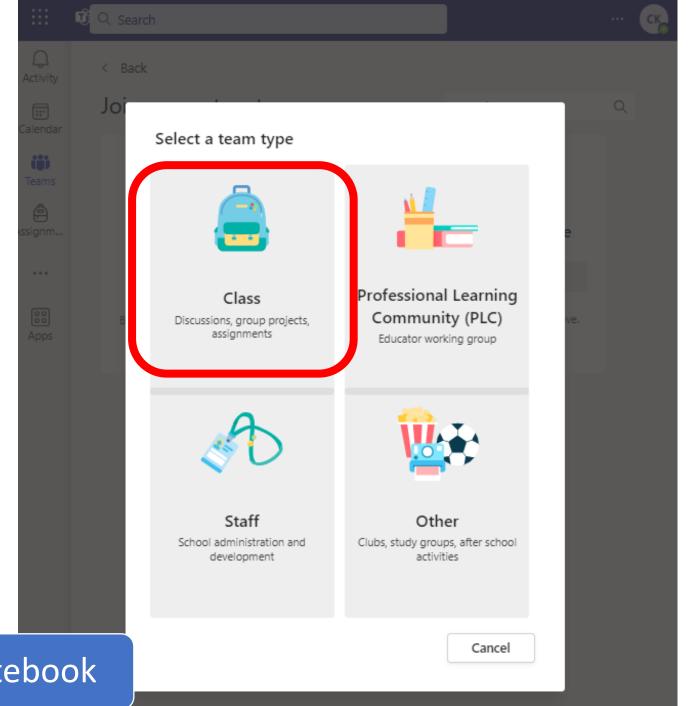
_教師専用

Microsoft OneNote

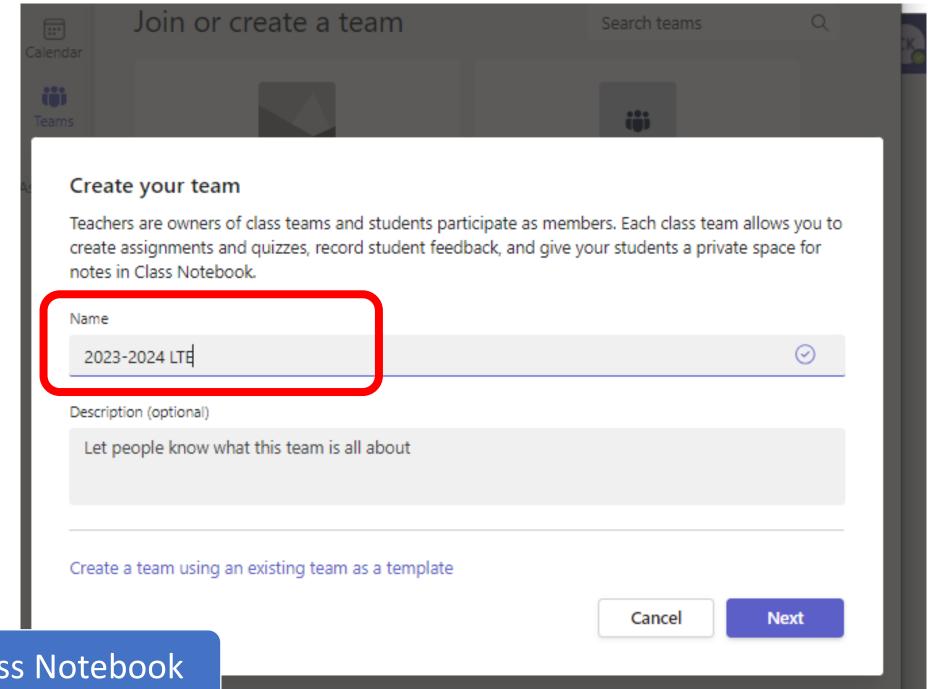
開始使用



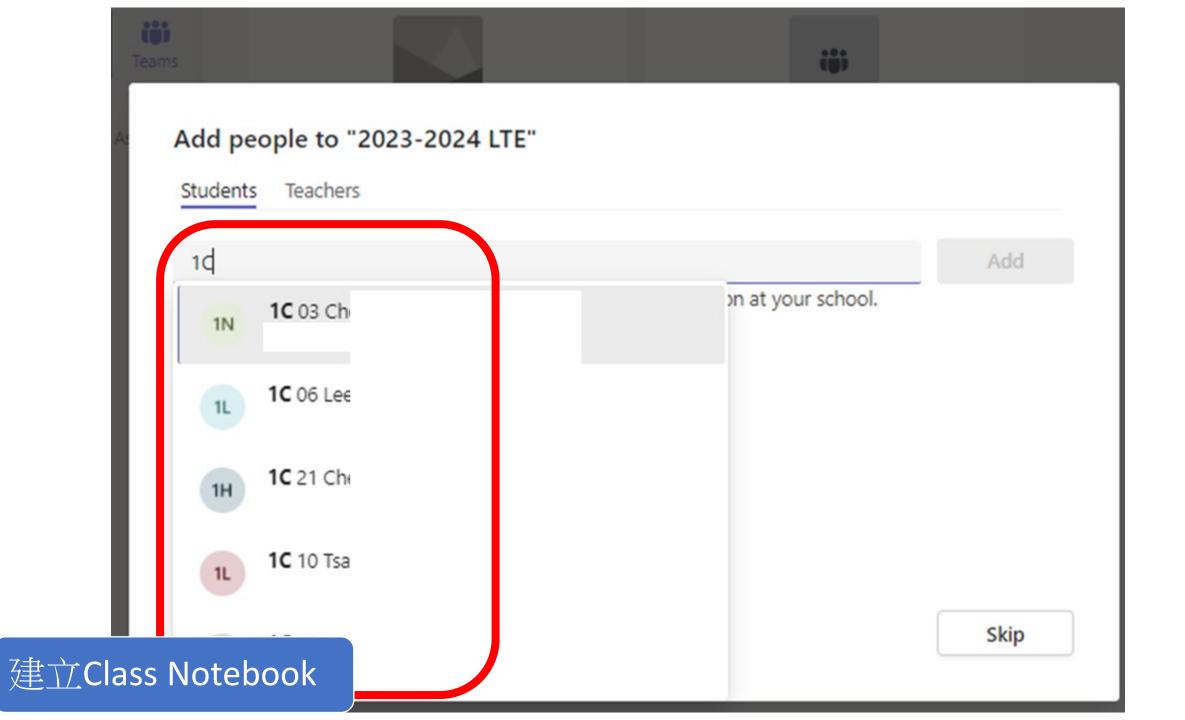


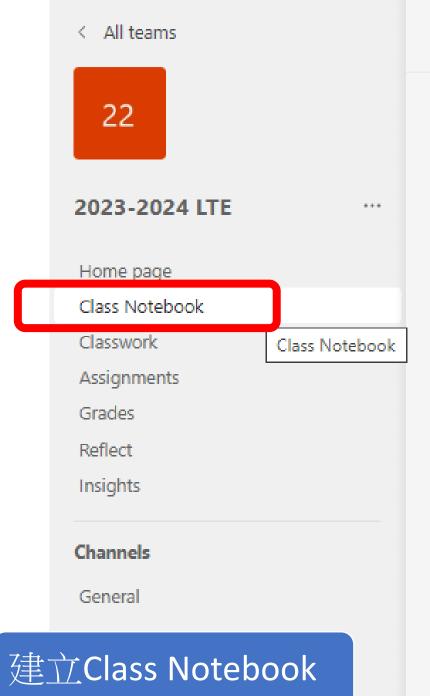


建立Class Notebook



建立Class Notebook









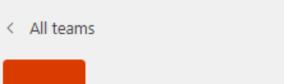






Give your students a private space for notes and a canvas for collaboration.

Set up a OneNote Class Notebook



22

2023-2024 LTE

...

Home page

Class Notebook

Classwork

Assignments

Grades

Reflect

Insights

Channels

General













Give your students a private space for notes and a canvas for collaboration.

Set up a OneNote Class Notebook

Blank Notebook

From existing notebook content

Here's what you will get in your 2023-2024 LTE Notebook:

Collaboration Space

Team notes are stored here for everyone to see. All channels will have sections here. A Teacher can edit the content

gR Student can edit the content

Content Library

Publish course materials to students.

A Teacher can edit the content

gR Student can only view the content

Teacher-Only Section

A private space for teachers

A Teacher can edit the content

go Student cannot view the content

Student Notebooks

A private space for each student.

A Teacher can edit the content

Student can edit his or her own content and can't view others' notebooks





2023-2024 LTE

Home page

Class Notebook

Classwork

Assignments

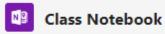
Grades

Reflect

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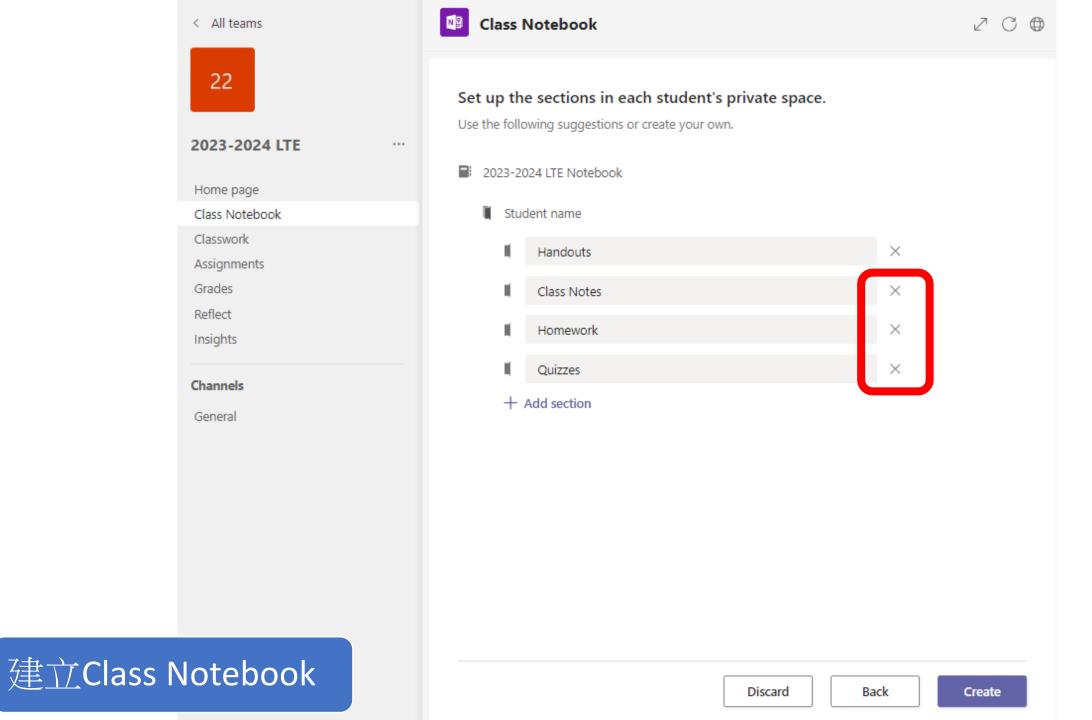
& Student cannot view the content

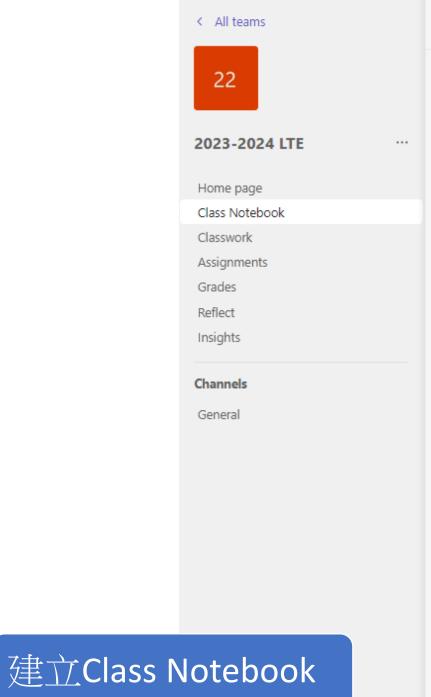
Student Notebooks

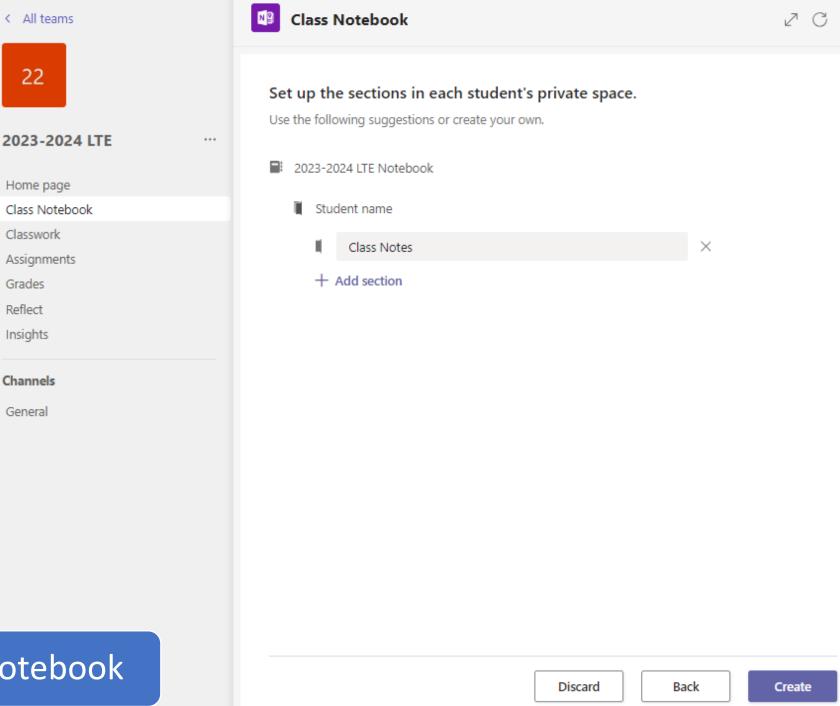
A private space for each student.

A Teacher can edit the content

g
^Q Student can edit his or her own content and can't view others' notebooks













歡迎使用

- > _Collaboration Space
- マ _内容庫
 - (Textbook) SB Exercise word file
 - Lesson Worksheet
 - Supplementary Example Worksheet
 - Consolidation Exercise
 - Challenging Worksheet
 - Teaching Powerpoint

CH1c Lesson Worksheet

CH1d Lesson Worksheet

CH1e Lesson Worksheet

CH2a Lesson Worksheet

CH2b Lesson Worksheet

CH2c Lesson Worksheet

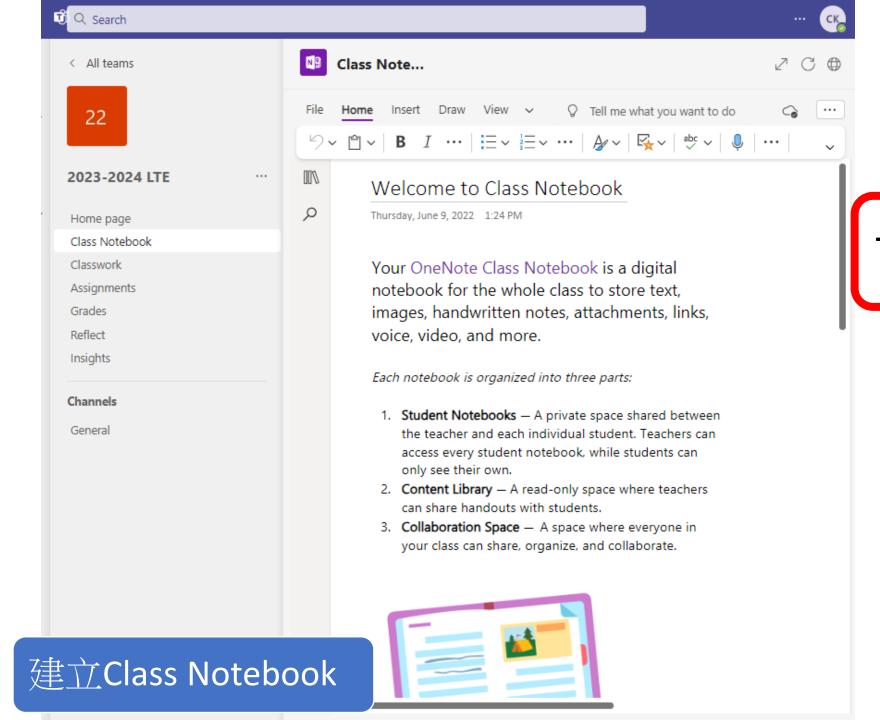
CH3a Lesson Worksheet

CH3b Lesson Worksheet

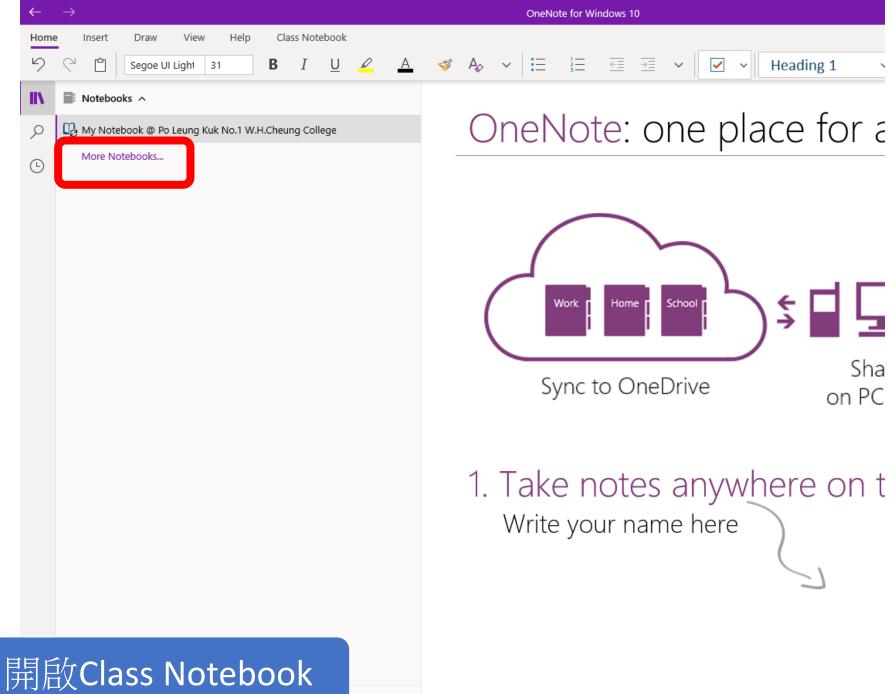
CH3c Lesson Worksheet

CH3d Lesson Worksheet

建立Class Notebook



Teams 任務完成



轉到OneNote

2 Get organized

Choose notebooks to open

Search for notebooks ho

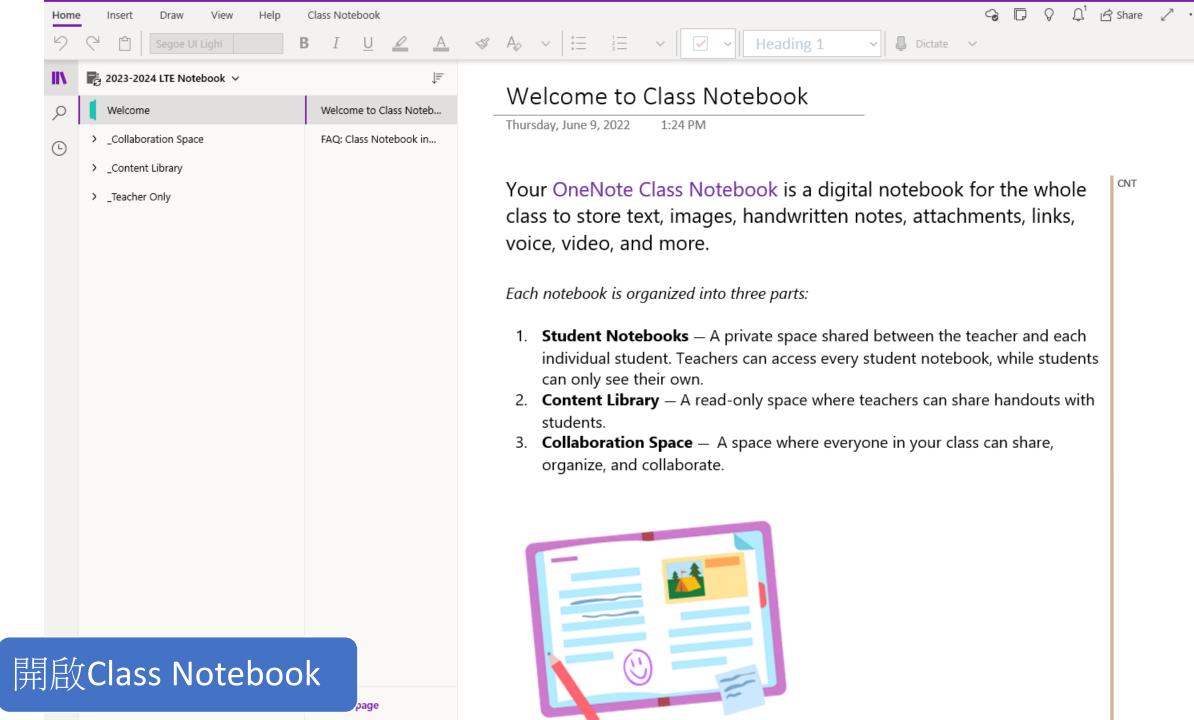
Notebook	Name	Last used by you ↑
	2023 HKOI Notebook	Today
	2023-2025 ICT 筆記本	Today
	2023-2024 1C Maths 筆記本	Today
✓ ■	2023-2024 LTE Notebook	Today
	aaaa	September 2023

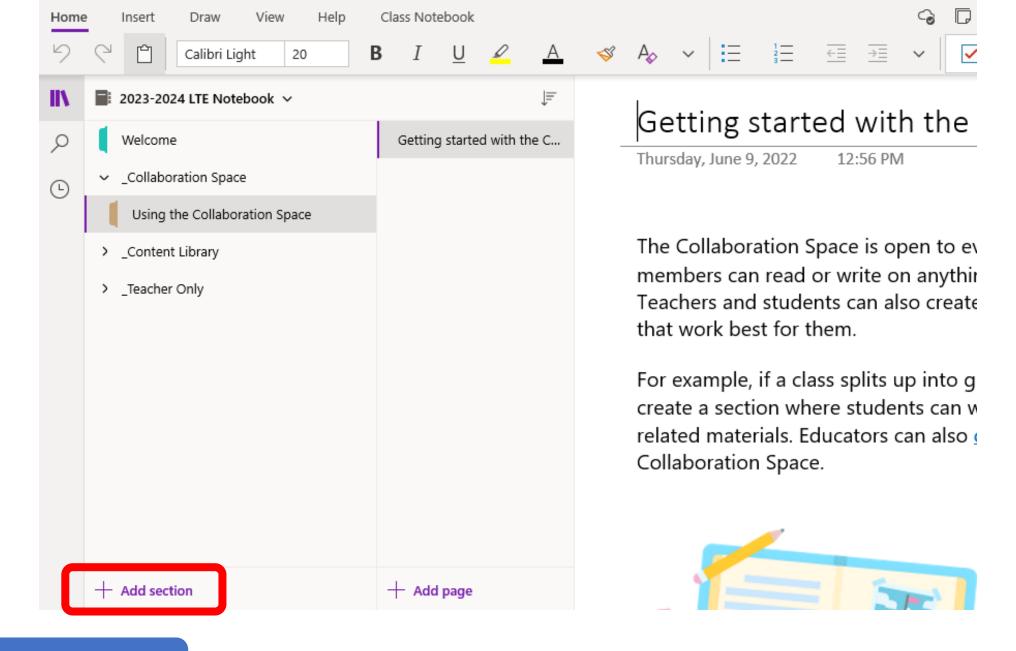
Not seeing all of your notebooks in this list? Learn More

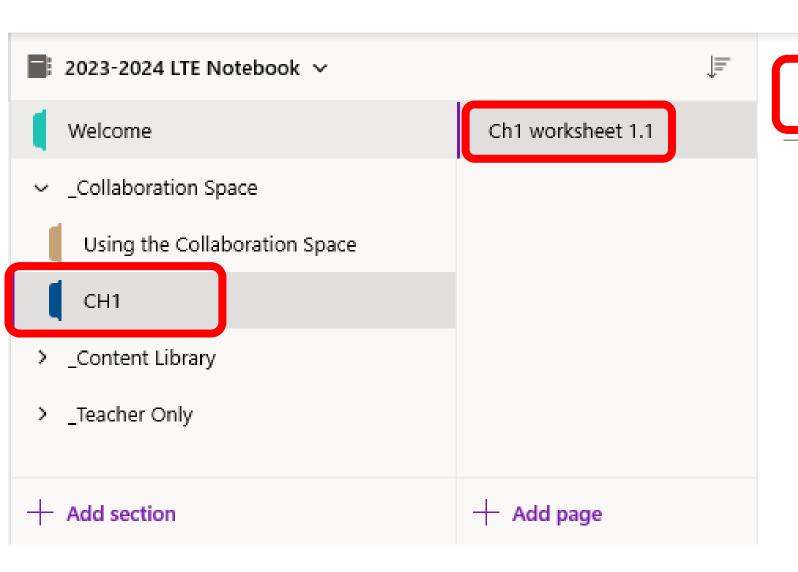
ount

Open (1)

Cancel



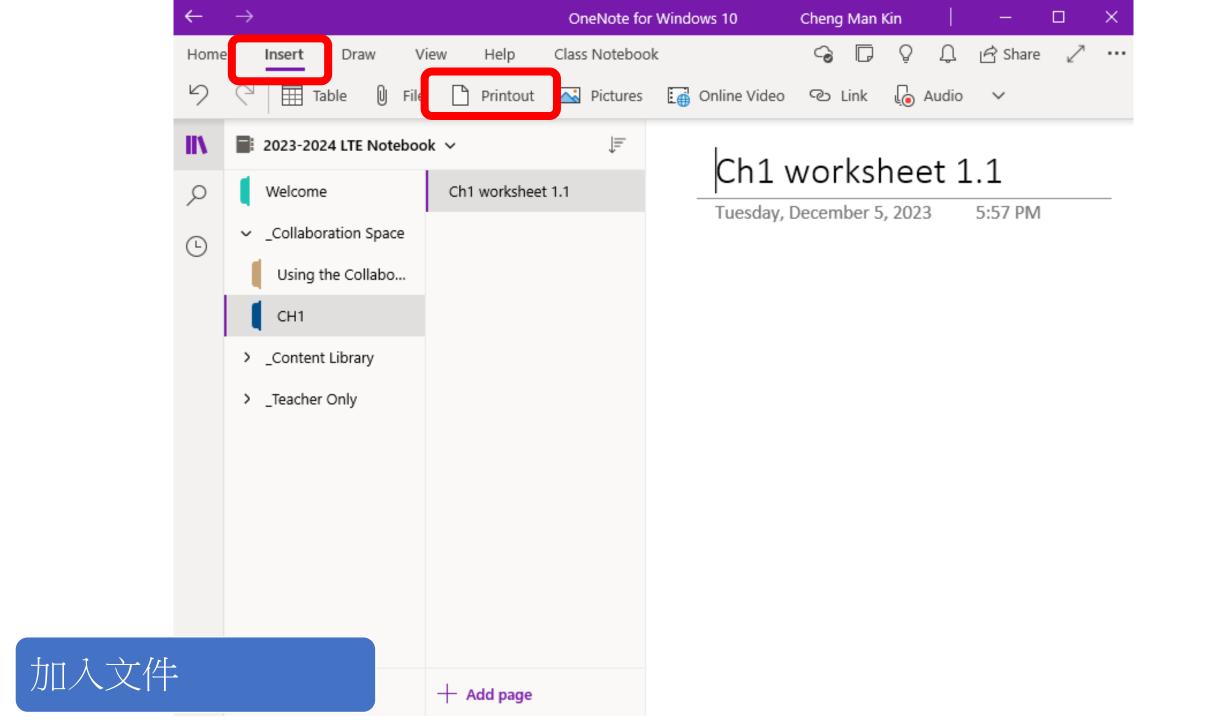


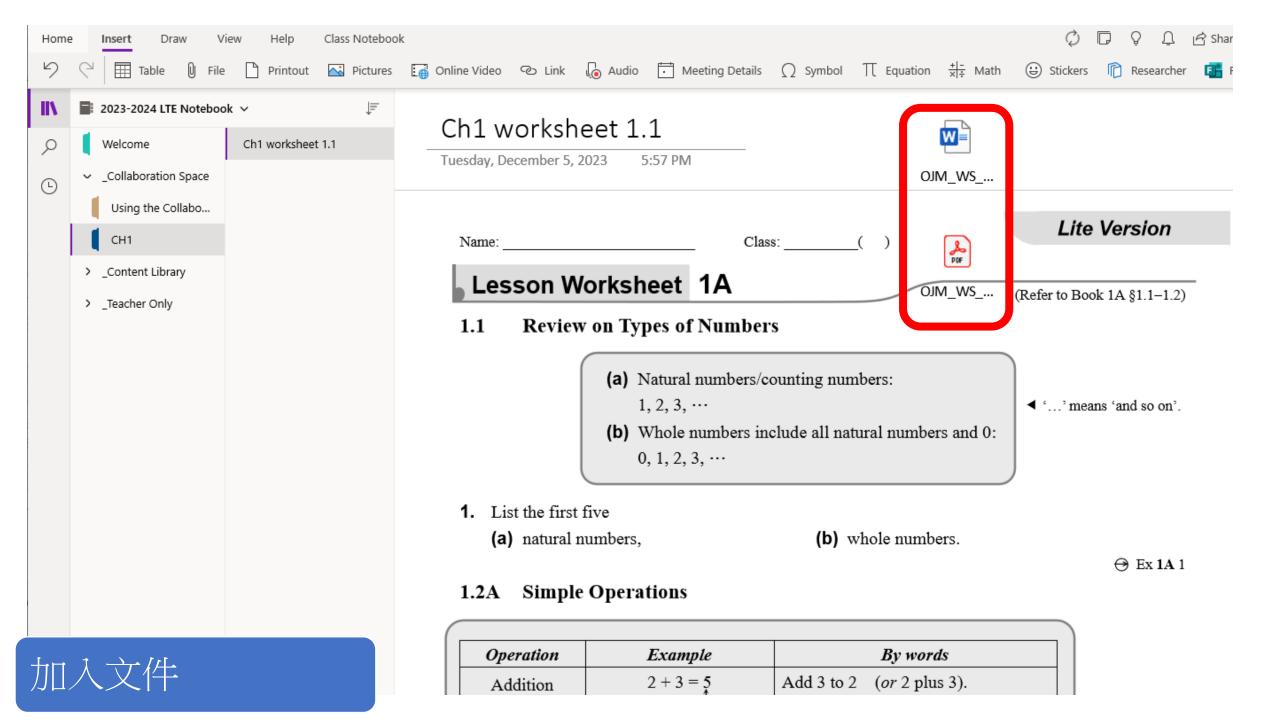


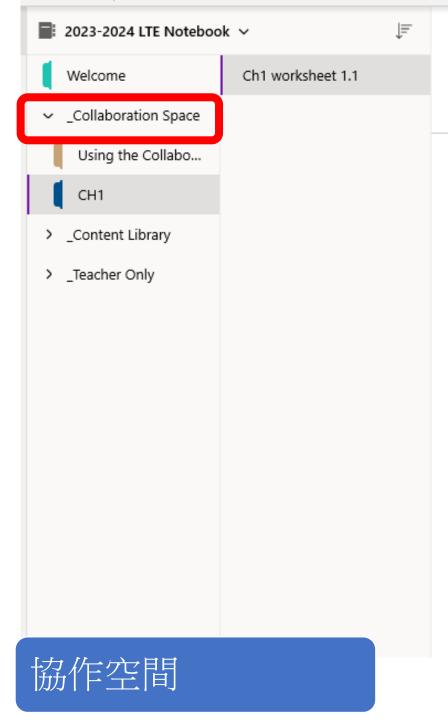
Ch1 worksheet 1.1

Tuesday, December 5, 2023

5:54 PI







Ch1 worksheet 1.1

Tuesday, December 5, 2023

5:57 PM



OJM_WS_...



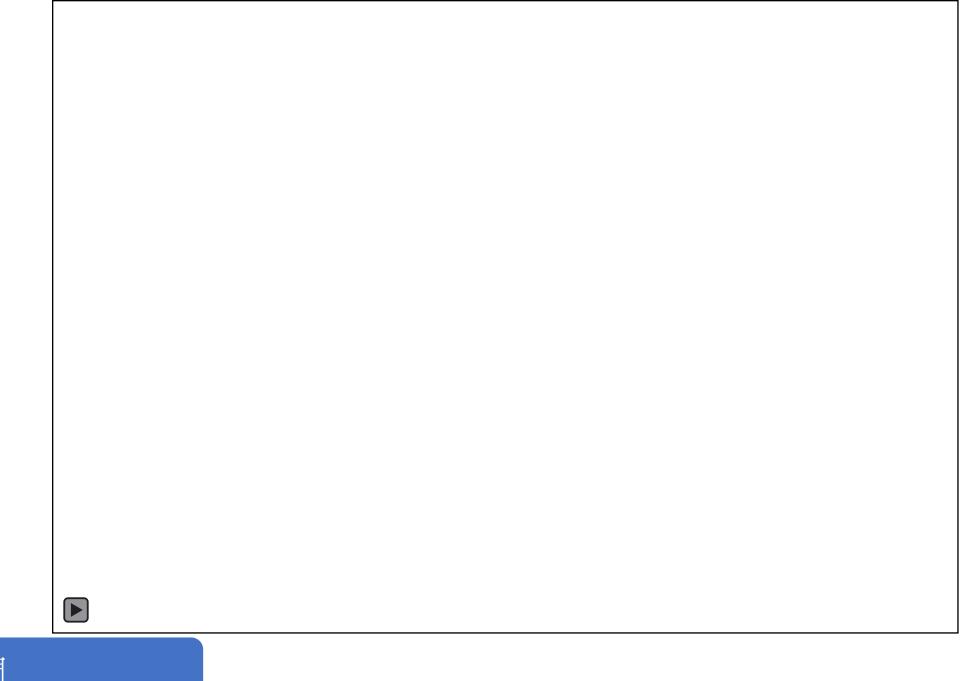
1.1 Review on Types of Numbers

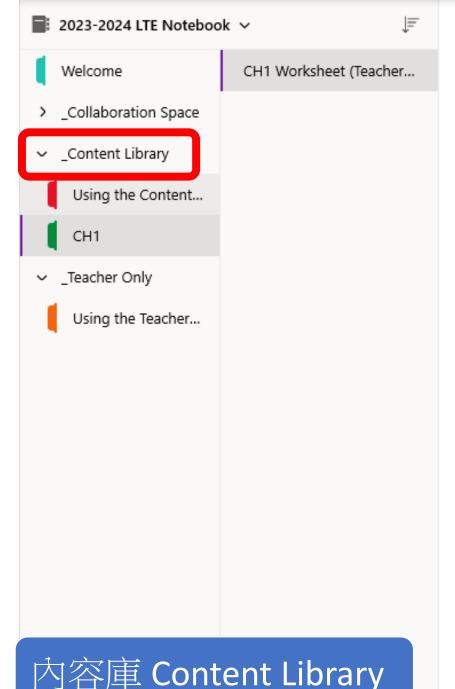
(a) Natural numbers/counting numbers:

- (b) Whole numbers include all natural numbers and 0: 0, 1, 2, 3, ...
- List the first five
 - (a) natural numbers,

(b) whole numbers.

1.2A Simple Operations





CH1 Worksheet (Teacher write, student view)

Wednesday, December 6, 2023

1:44 PM



Class: (

Lesson Worksheet 1A

1.1 Review on Types of Numbers

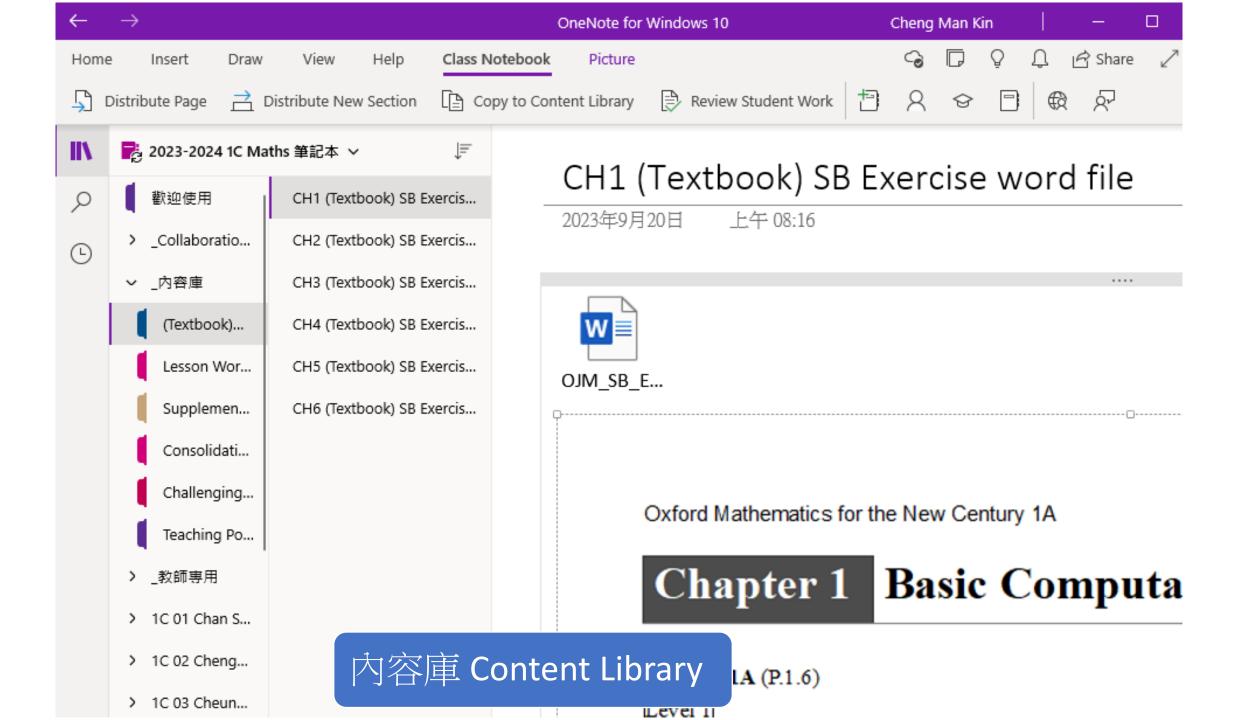
(a) Natural numbers/counting numbers:

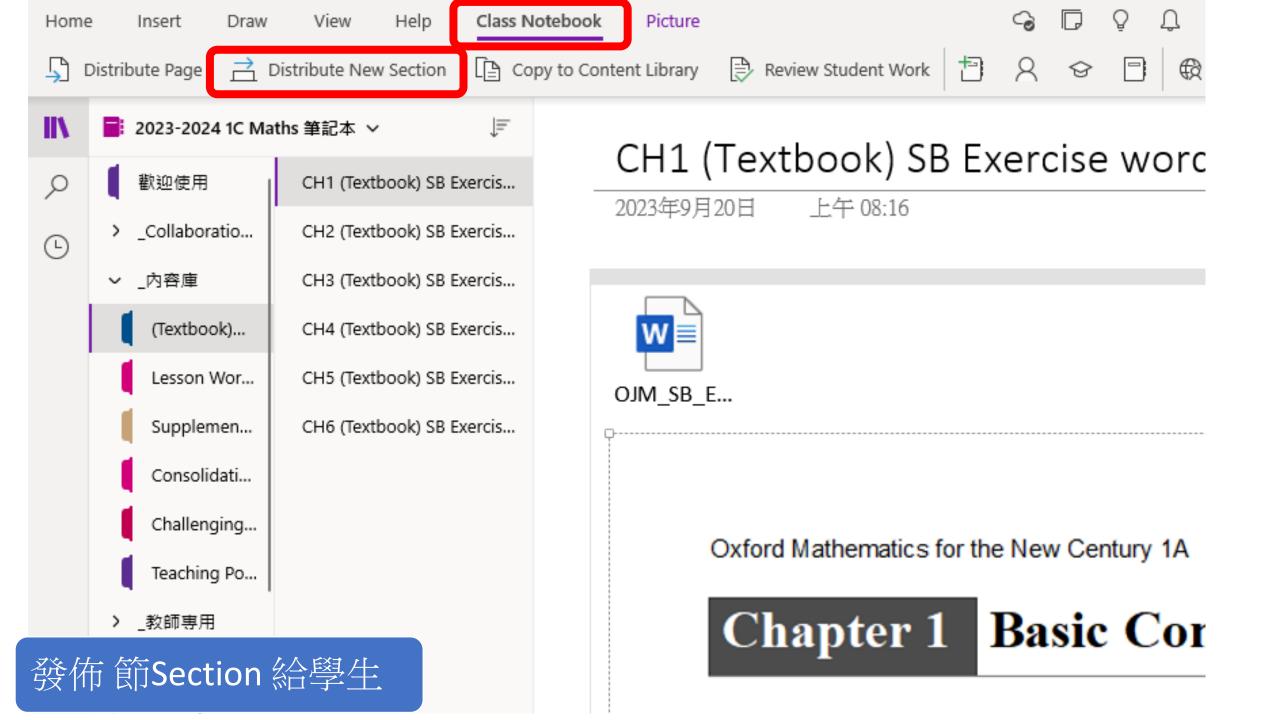
 $1, 2, 3, \cdots$

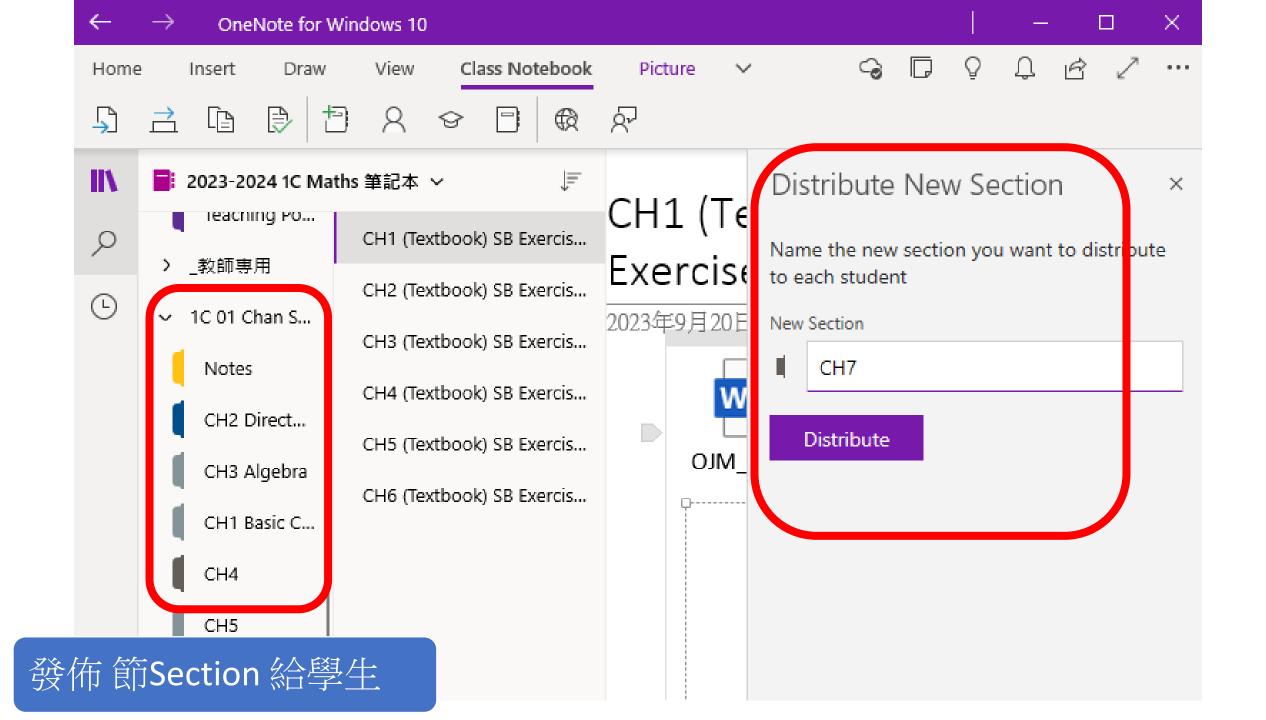
- (b) Whole numbers include all natural numbers and 0: 0, 1, 2, 3, ...
- 1. List the first six
 - (a) natural numbers,

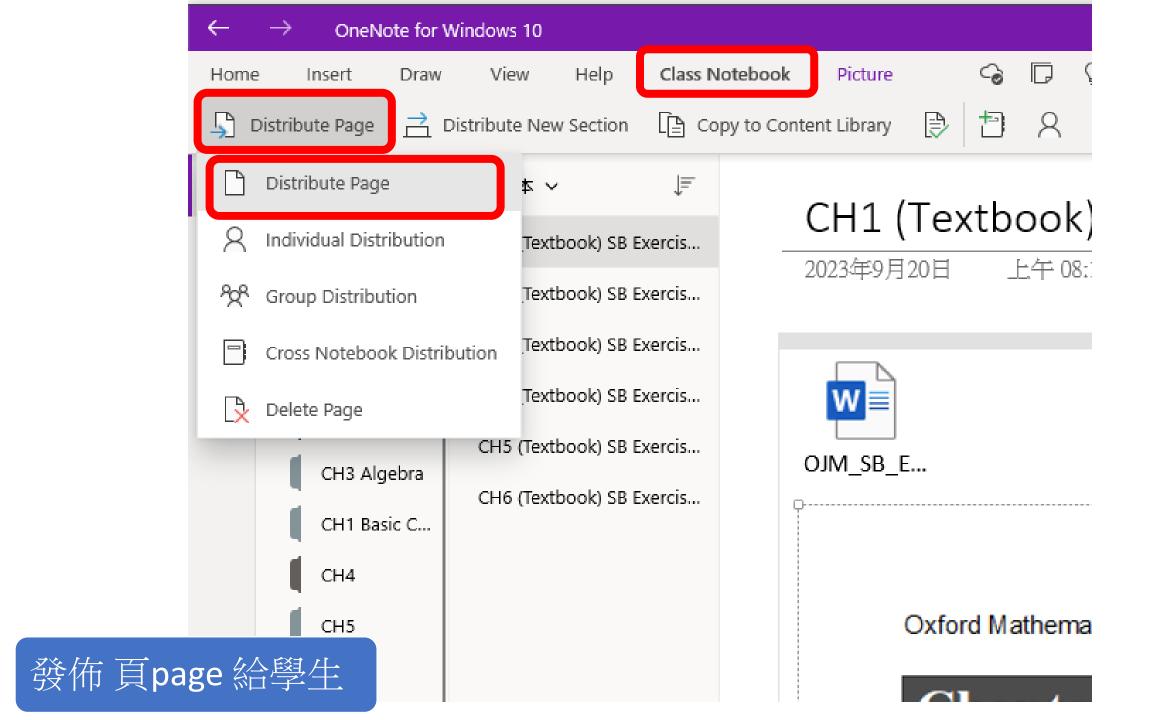
(b) whole numbers.

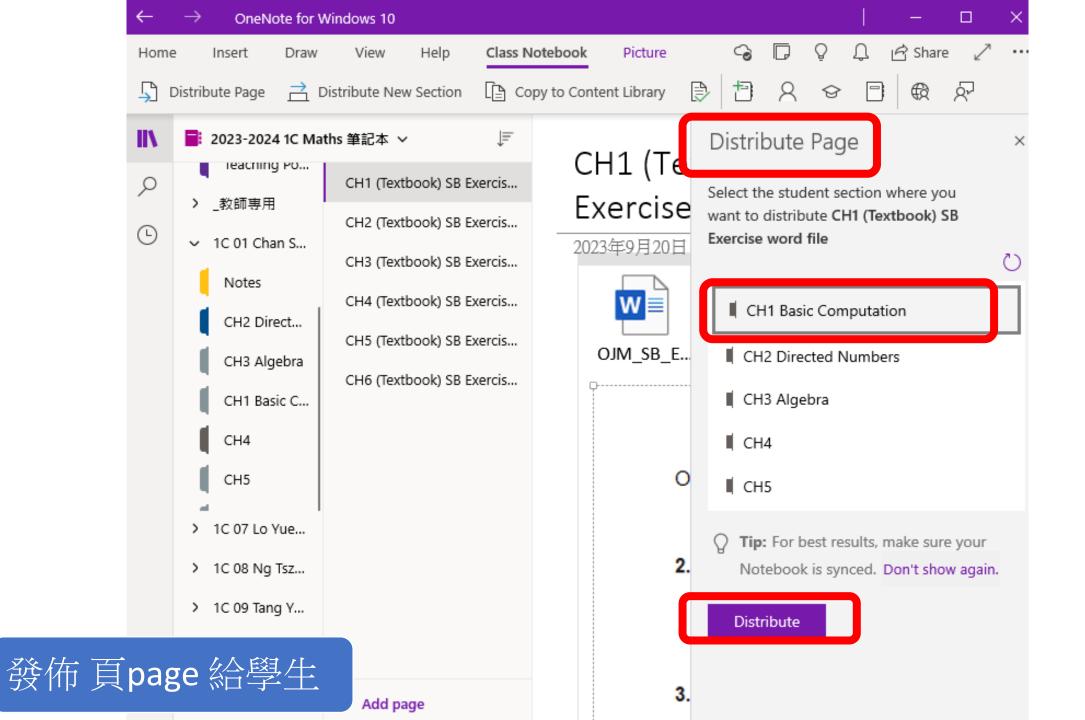
1.2A Simple Operations

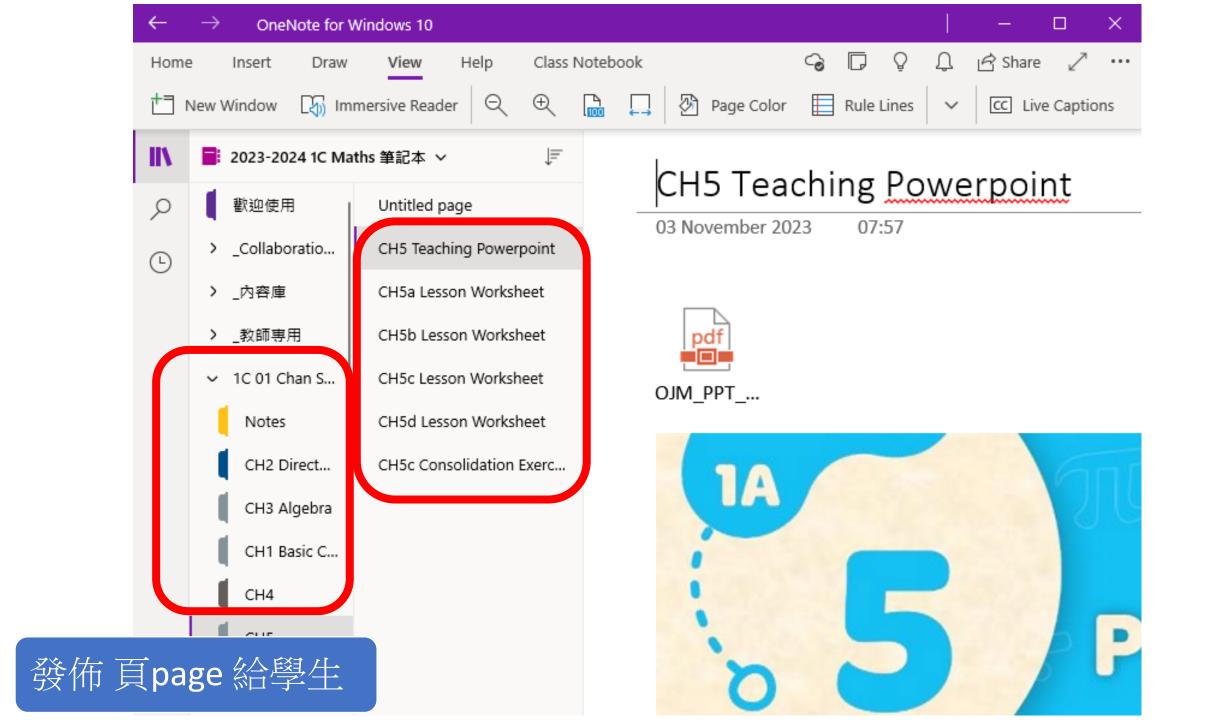


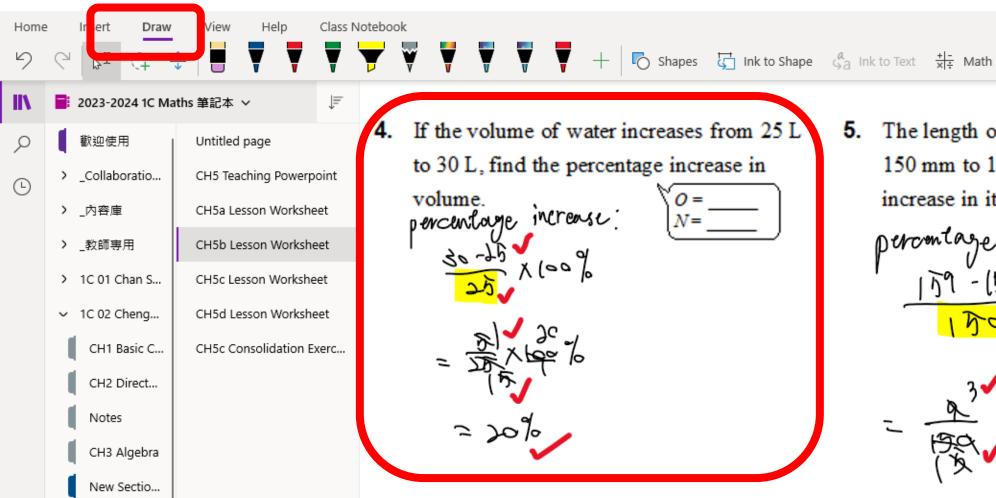


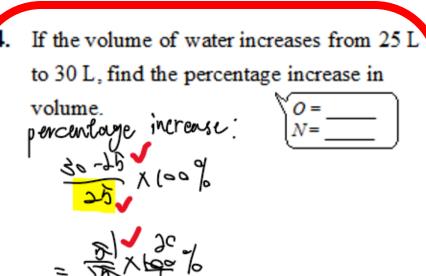










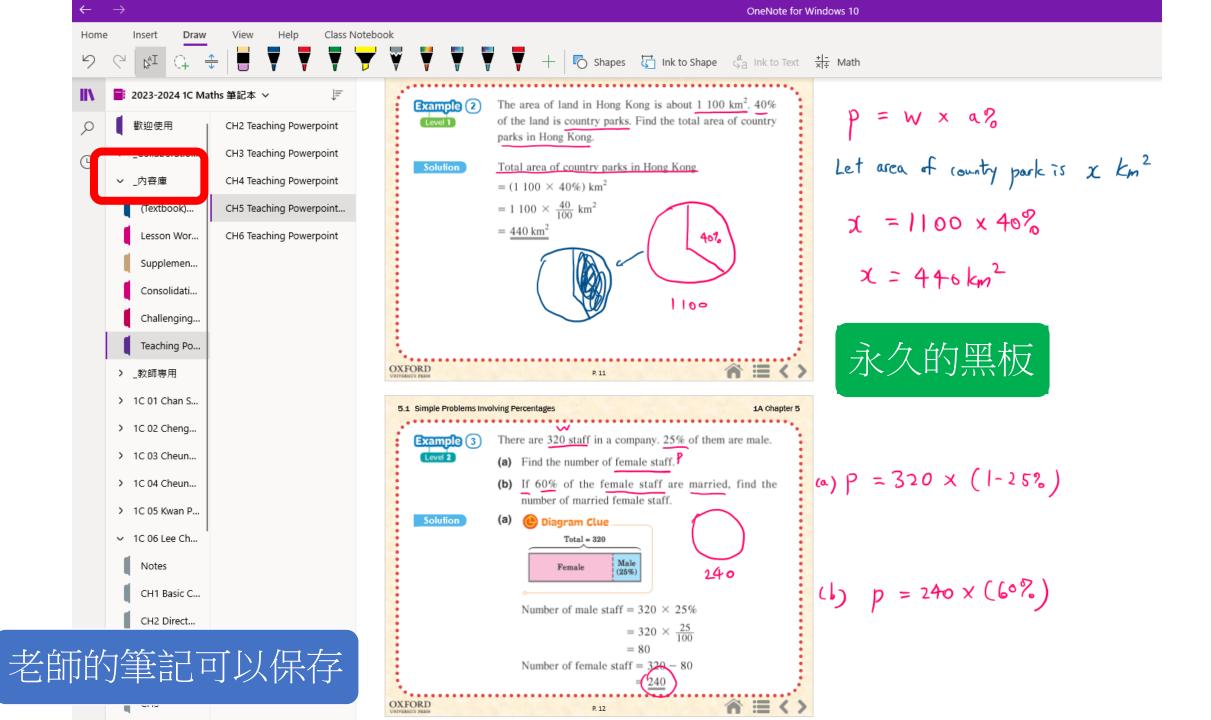


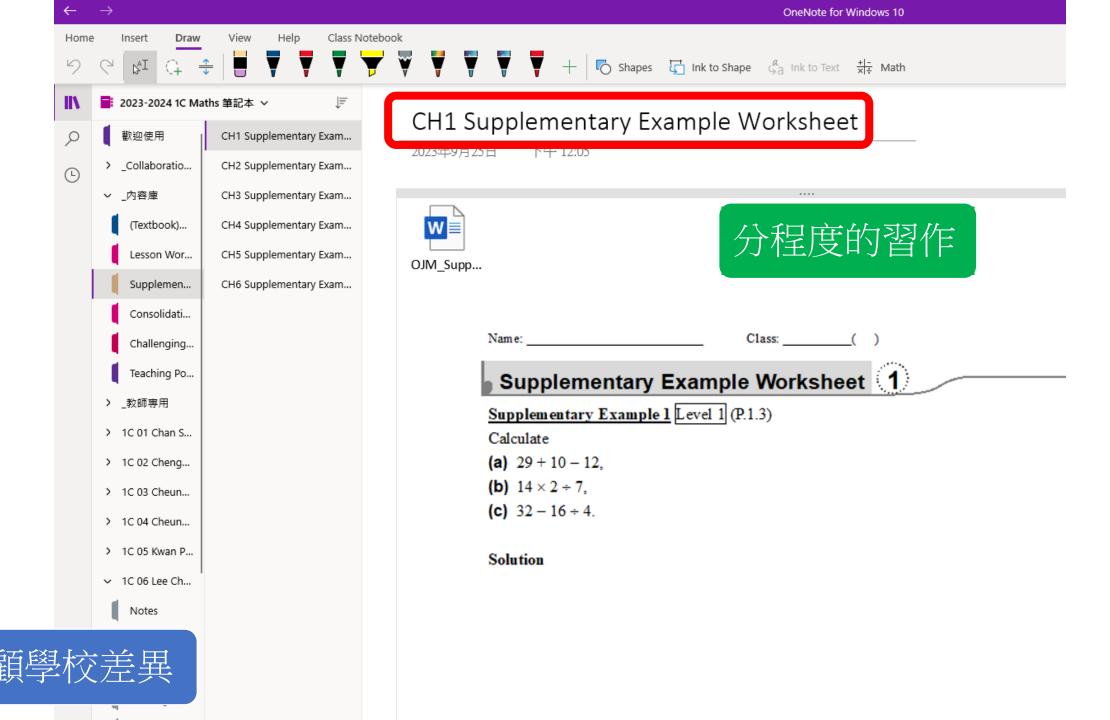
The length of a rabbit increases from 150 mm to 159 mm. Find the percentage increase in its length.

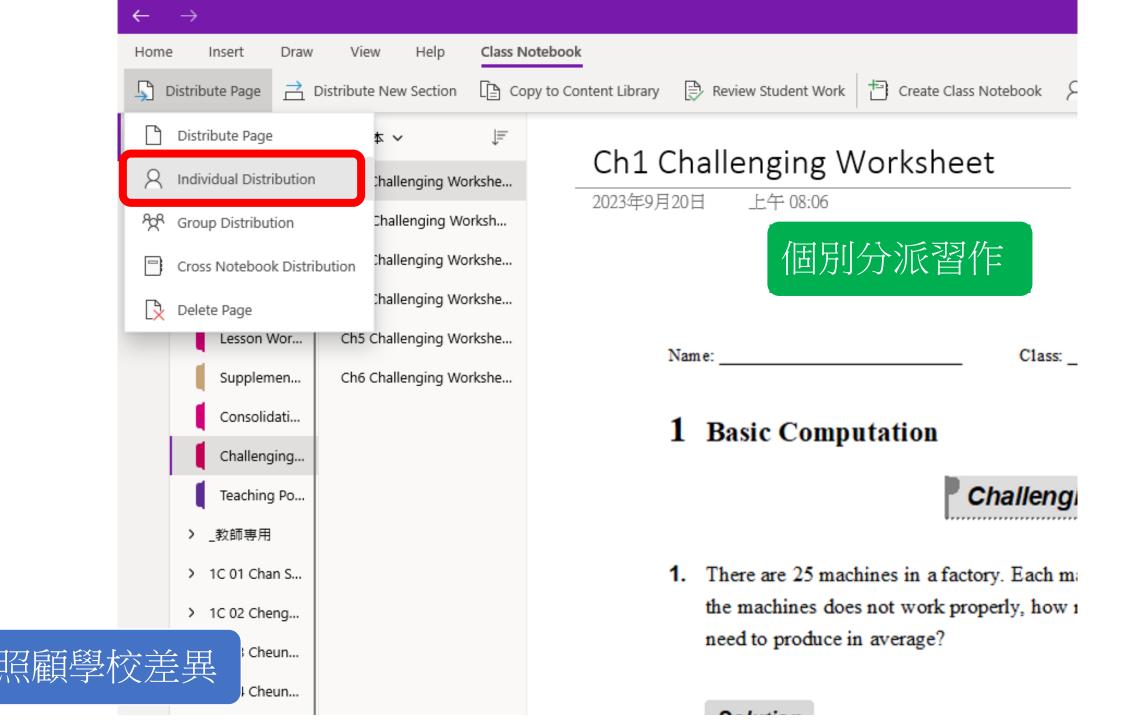
CH4

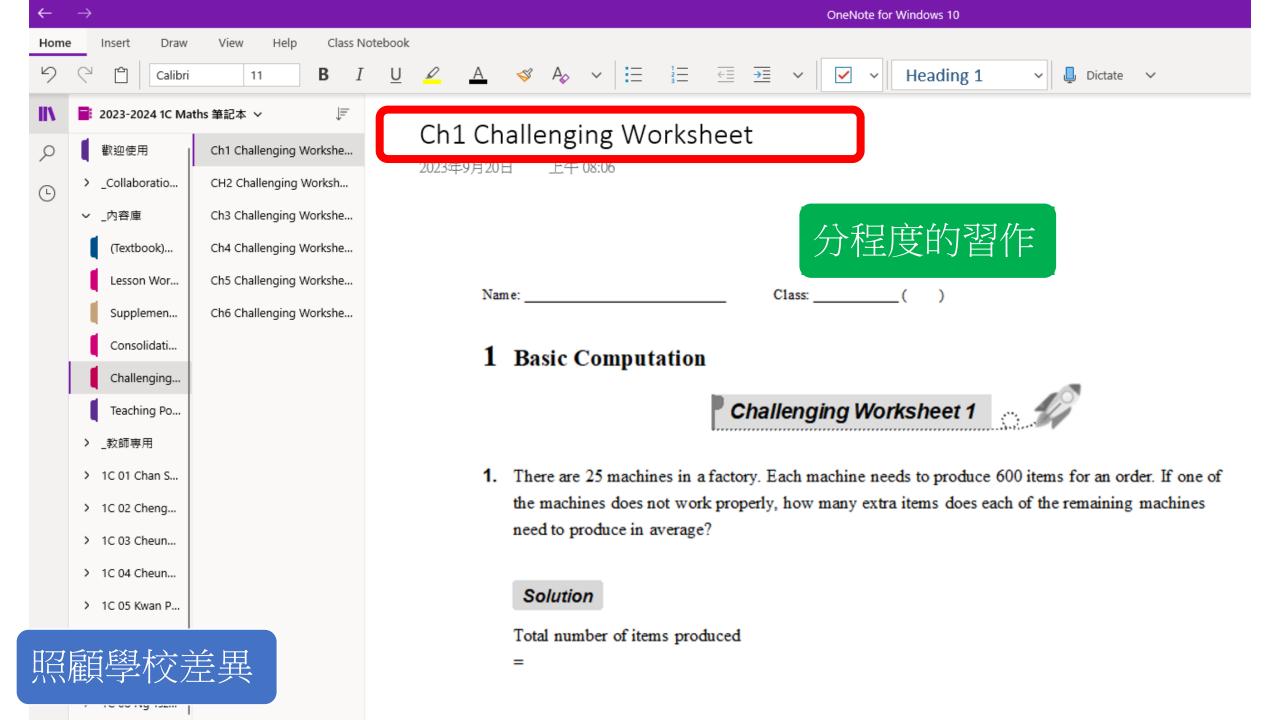
CH5

CH6











學生評估資料庫(STAR)

開始使用



沒有帳戶?立即創建一個新帳戶不用一分鐘 申請帳號

登入名稱

▲ 電郵/登入名稱

帳戶密碼



忘記密碼



= 學校帳戶管理系統



1 學校資料

- ⇒ 學生帳戶
- ▶ 更新學生帳戶
- ▲ 上載學生帳戶名單
- ↑ 批量重設帳戶登入憑證
- ♣ 校本教師帳戶
- 🛕 職員帳戶

♪步驟

1 下載全校學生帳戶「XLSX」檔案,或者在 WebSAMS 執行「SQL」指令,以下載全校學生帳戶資料。

在已下載的全校學生名單內:

- 加入新入學學生資料,例如小一或中一學生資料
- 加入自訂的登入名稱、預設密碼,或學校電郵等
- 如沒有提供新入學學生的登入名稱,本系統將會為新學生自訂登入名稱
- 更新現有學生資料,例如所屬班級
- 刪除已離校學生資料
- 2 上載已更新的「XLS/XLSX」檔案
- 3 預覽上載結果
- 4 完成新增學生程序

學校帳戶管理員的常用電郵地址(

)將會收到有關上載學生檔案的通知,他或她亦可登入本系統查閱全校學生檔案。

收集個人資料聲明

教城已制定收集和使用個人資料的政策,閣下有權查閱及改正教城所持關於閣下的個人資料,詳情請瀏覽 私隱政策聲明 ,或向本公司職員查詢。

開始

事前準備

私隱政策聲明 | 服務條款 | 版權及知識產權 | 免責聲明 | 聯絡我們 ◎ 2023 香港教育城有限公司





- 1 學校資料
- ⇒ 學生帳戶
- ▶ 更新學生帳戶
- ▲ 上載學生帳戶名單
- → 批量重設帳戶登入憑證
- 🚢 校本教師帳戶
- □ 職員帳戶

事前準備

批量重設帳戶登入憑證

*請揀選所需級別或班別,並按下本頁末端的「重設密碼」。系統將重設相關帳戶的密碼為「預設密碼」。

選擇重設密碼的級別或 班別:

✓ 全部

✓ S1 ✓ S1A ✓ S1B ✓ S1C ✓ S1D ✓ S1E

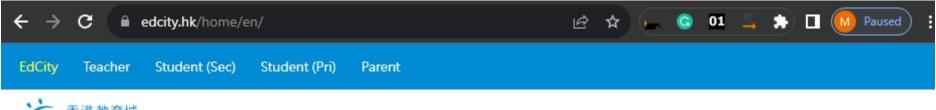
✓ S2
 ✓ S2A
 ✓ S2B
 ✓ S2C
 ✓ S2D
 ✓ S2E

✓ S3
 ✓ S3A
 ✓ S3B
 ✓ S3C
 ✓ S3D
 ✓ S3E

✓ S4 ✓ S4A ✓ S4B ✓ S4C ✓ S4D ✓ S4E ✓ S4F

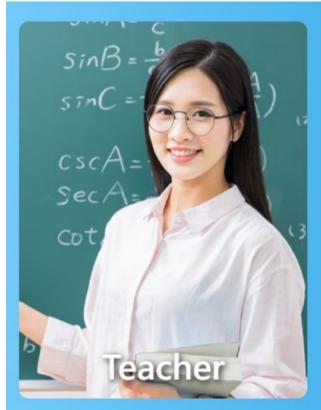
✓ S5 ✓ S5A ✓ S5B ✓ S5C ✓ S5D ✓ S5E ✓ S5F

✓ S6
 ✓ S6A
 ✓ S6B
 ✓ S6C
 ✓ S6D
 ✓ S6E
 ✓ S6F













EdCity Teacher Student (Sec) Student (Pri) Parent









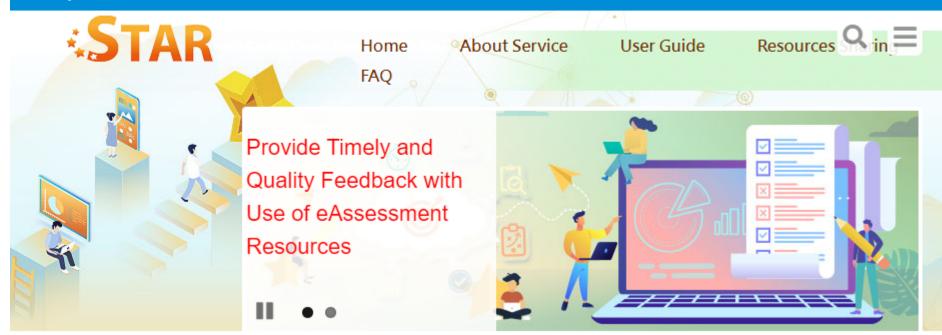












Home





STAR is an online assessment item bank with more than 65 000 assessment items covering the subjects of Chinese Language, English Language and Mathematics from Primary 1 to Secondary 3. With a view to enhancing learning and teaching effectiveness, catering for students' learning diversity as well as strengthening ssessment for Learning and assessment literacy in an on-going manner, the overage of the platform has been extended progressively from Basic ompetencies to Full Curriculum of Chinese Language, English Language and







請選擇科目

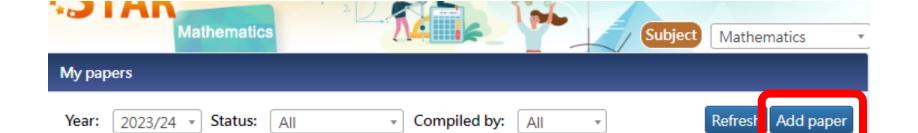






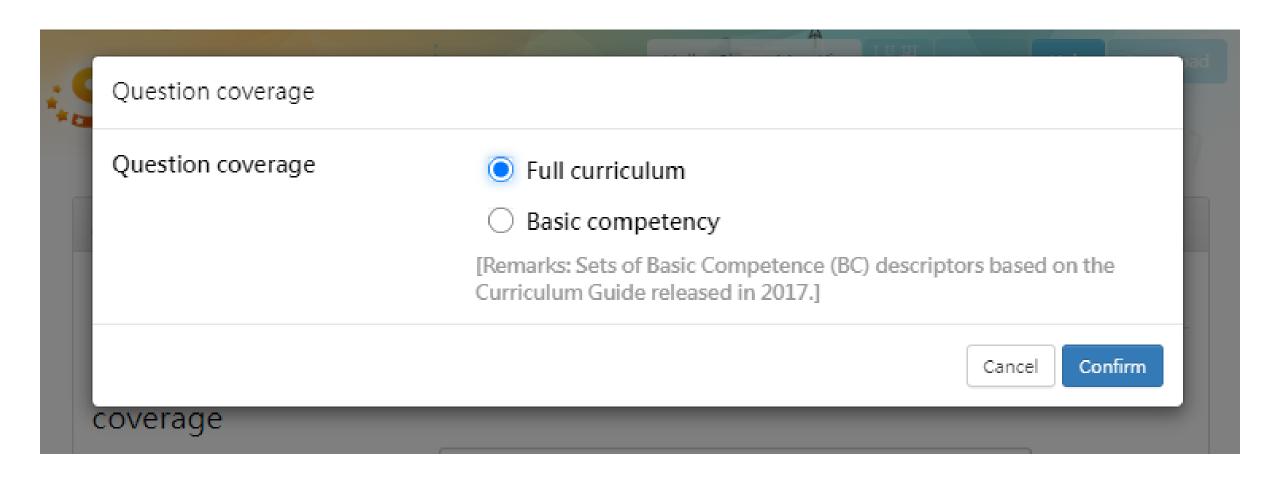


關於 STAR | 最新消息



My papers Preset papers Shared papers

		14 <4	1 Total 1	page(s)	10	~	1 - 6 Total 6 row(s)
Marking	Paper title	Start time	End time	Status	Compiled by	Modified at	Action
All	×	×	×	×	×	×	×
Automated marking	CH5 percentage medium	2023-11-23 00:00	2023-11-24 00:00	Finished	Myself	2023-11-24 00:05	/ Q 🗏 C
Automated marking	Ch4 Sequence	2023-11-09 00:00	2023-11-16 08:00	Finished	Myself	2023-11-16 08:00	/ Q 🖥 🗷
Automated marking	Chapter 3	2023-10-19 00:00	2023-10-23 00:00	Finished	Myself	2023-10-23 00:01	/ Q 🗏 C
Automated marking	2.2: perform mixed arithmetic operations of directed numbers	2023-10-06 00:00	2023-10-10 00:00	Finished	Myself	2023-10-10 14:17	/ Q 🗏 C
Automated marking	2.1: understand the concept of directed numbers	2023-10-05 08:00	2023-10-10 08:00	Finished	Myself	2023-10-10 08:00	/ Q 🗏 C
Automated marking	1 Basic computation	2023-10-03 00:00	2023-10-09 00:00	Finished	Myself	2023-10-09 00:00	/ Q 🗏 C





Add paper (Question coverage: Full curriculum) Add question(s) to paper Select the number of questions or the duration for the task. Number of question(s) 5 Or Estimated duration (minutes) 30 The <u>learning objectives underlined</u> are the Non-foundation Topics Search criteria Selected Items: 426 + ☑ KS1 Sulus av D X OR 5.1: understand the concept of percentage changes x **+** ☑ KS2 OR 5.2: solve related real-life problems x OR 6.1: understand the concepts of rates, ratios and proportions x — ☑ KS3 OR 6.2: solve problems involving rates, ratios and proportions x + ☑ Number and Algebra OR 7.1: represent word phrases by algebraic expressions x + ✓ Measures, Shape and Space OR 7.2: represent algebraic expressions by word phrases x OR 7.3: recognise the concept of sequences of numbers x + ☑ Data Handling Level of ○ Any ○ Low ○ Medium difficulty Use keyword(s) / question code / question name to focus your search Question coverage Full curriculum Example: peak There are 1564 matched question(s), in which 0 Search all

Add question(s) to paper

Select the number of questions or the duration for the task.

Or Estimated duration (minutes) 30 Number of question(s) 5

+ ⊠ KS1 + ☑ KS2 + ☑ KS3

Search criteria

Selected BC descriptors: 218

- KS1-N1-1: Demonstrate a recognition of places (units place to ten thousands place), involving reading, writing and ordering numbers up to 5 digits. x
- OR KS1-N2-1: Perform addition and subtraction of three 3-digit numbers at most, and use the commutative and associative properties of addition (not involving using brackets, performing addition with carry in three steps and performing mixed operations). x
- OR KS1-N2-2: Perform multiplication and division of three numbers at most, and use the commutative and associative properties of multiplication, multiplication up to 3-digit numbers.

Level of ● Any ○ Low ○ Medium ○ High difficulty

n name to focus your search

Question coverage

Full curriculum

Basic competency

[Remarks: Sets of Basic Competence (BC) descriptors based on the Curriculum Guide released in 2017.]

There are 8601 matched question(s), in which 0 Search bookmarks have been bookmarked.

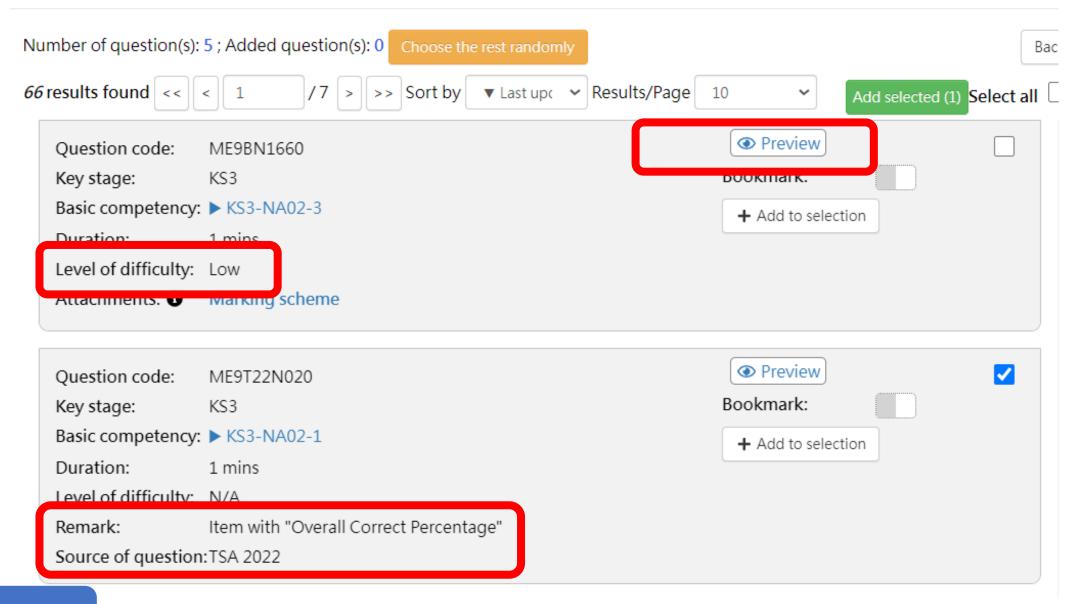
Search all

Add question(s) to paper

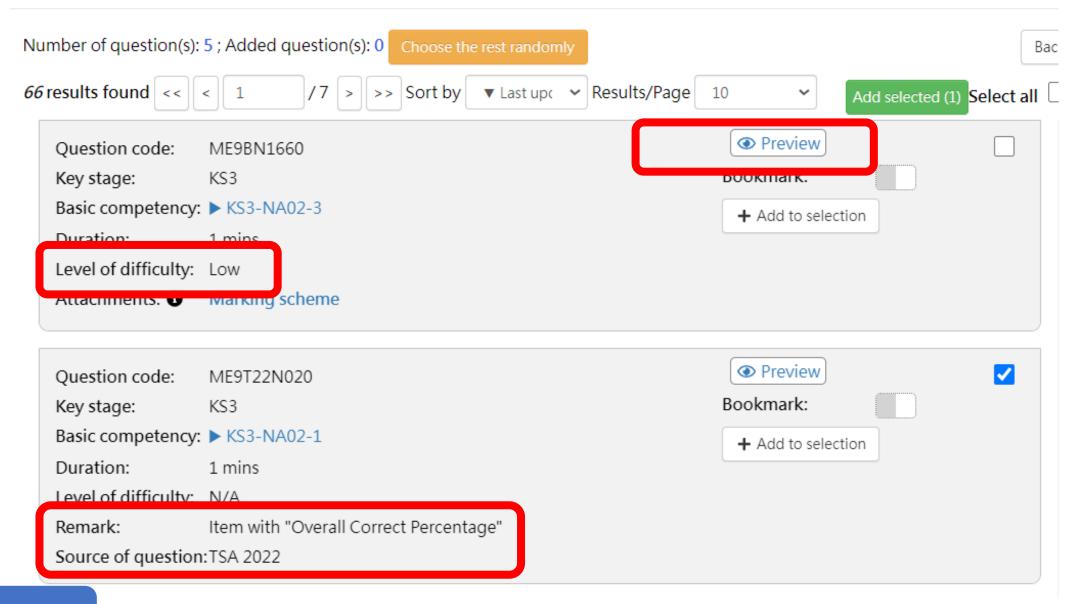
quations in one unknown

Select the number of questions or the duration for the task. Or Estimated duration (minutes) 30 Number of question(s) 5 Search criteria **+** □ KS1 Selected BC descriptors: 3 **+** □ KS2 KS3-NA02-1: demonstrate recognition of the ordering of integers on the number line. x • OR KS3-NA02-2: use positive numbers, negative numbers and zero to — □ KS3 describe situations such as profit and loss, floor levels relative to the ground level, temperature, etc. x ■ Number and Algebra OR KS3-NA02-3: perform mixed arithmetic operations of directed **+** □ Basic computation numbers (with at most three operations in each expression). x **+** ☑ Directed numbers Level of Medium High difficulty **+** □ Approximate values and numerical estimation Use keyword(s) / question code / question name to focus your search **+** □ Rational and irrational numbers Example: peak **+** □ Using percentages **+** □ Rates, ratios and proportions There are 66 matched question(s), in which 0 Search bookmarks Search all ic expressions have been bookmarked.

Select question >



Select question >



Question content

Question code ME9BN1660

Subject Mathematics

Close

Check answers | Show suggested answers | Reset

Fill in the boxes with correct signs.

2.1: understand the concept of directed numbers

Question No.: 2-6

Close

Fill in the blanks with"<", ">" or "=" sign.

(a) 4 =
$$\otimes$$
 +4

$$(d) -1 > \otimes \times (Ans) > -3$$

$$(g) -5 > \otimes \times Ans > -7$$

<< < 4 /27 > >> Browse questions•

Save Submit

Quit

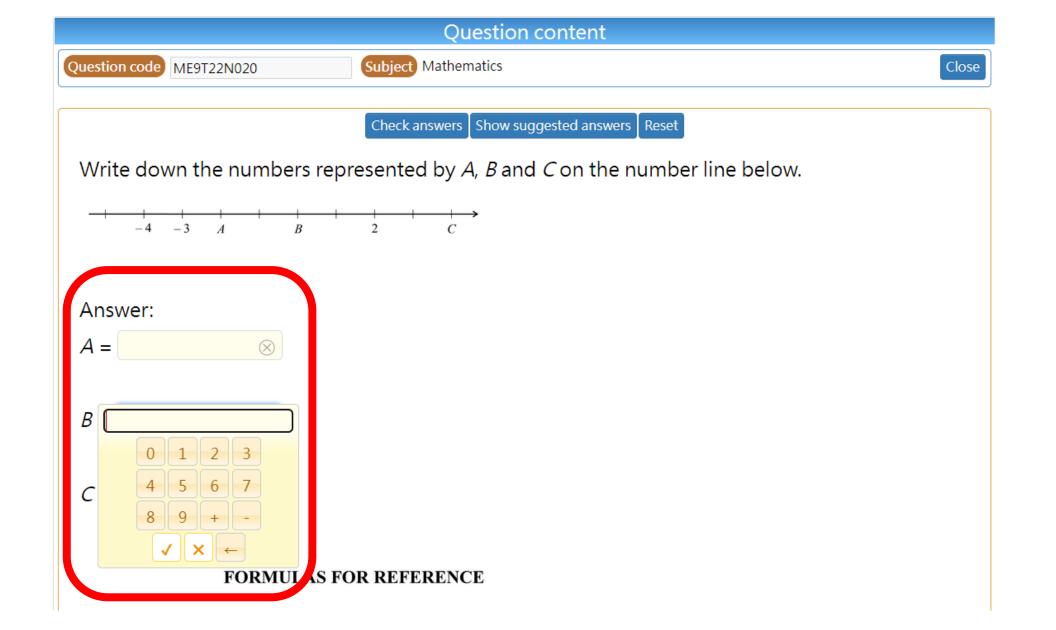
Calculate
$$0.72 \div \left(10.2 - \left(5 - \frac{6}{7}\right) \div \frac{3}{7}\right)$$
.

Answer:





(The answer box can be converted to a blank or blanks in fraction format by pressing the o button.)



Question content

Question code ME9T17N080

Subject Mathematics

Close

Check answers | Show suggested answers | Reset

Miss Chan bought N dozens of pencils. After she took away 3 pencils, the remaining could be equally divided among p students. How many pencils could each student get?

A.
$$\frac{12(N-3)}{12(N-3)}$$

B.
$$\frac{12N-3}{2}$$

c.
$$\left| \frac{12N}{p} - 3 \right|$$

Selected question(s)

Number of question(s) selected: 1 (0 mins 30 secs)

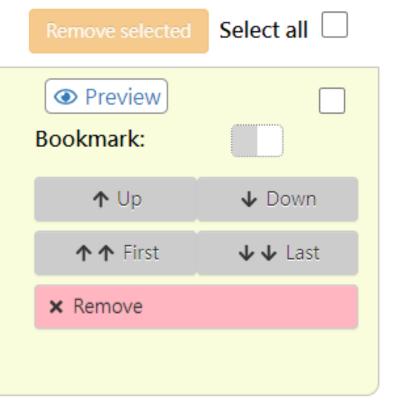
Question code: ME9T17N350

Key stage: KS3

Basic competency: ► KS3-NA07-3

Duration: 0 mins 30 secs

Level of difficulty: Medium



Continue

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建立試着

Selected question(s)

Number of question(s) selected: 1 (0 mins 30 secs)

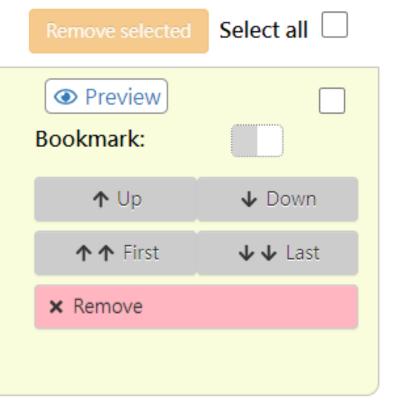
Question code: ME9T17N350

Key stage: KS3

Basic competency: ► KS3-NA07-3

Duration: 0 mins 30 secs

Level of difficulty: Medium



Continue

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Available time

** EdCity service will be suspended from 23 Dec 2023 00:00 MN to 25 Dec 11:00 PM due to the relocation of data centre. Please accept our apology for the inconvenience caused. (Read more ...)

Start time 2023-12-06 00:00

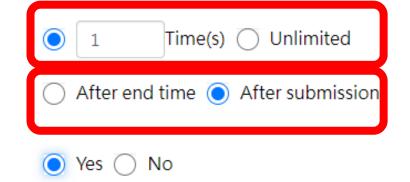
End time 2023-12-17 00:00

Other settings

No. of submission by students

Students can view individual report

Students must answer all questions



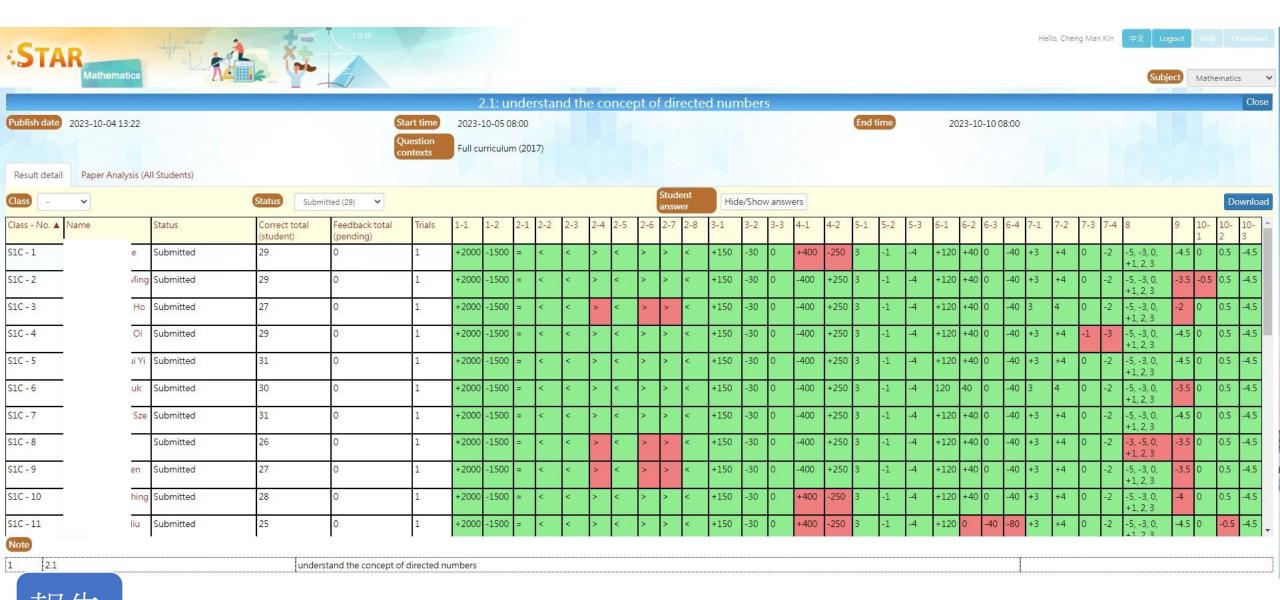
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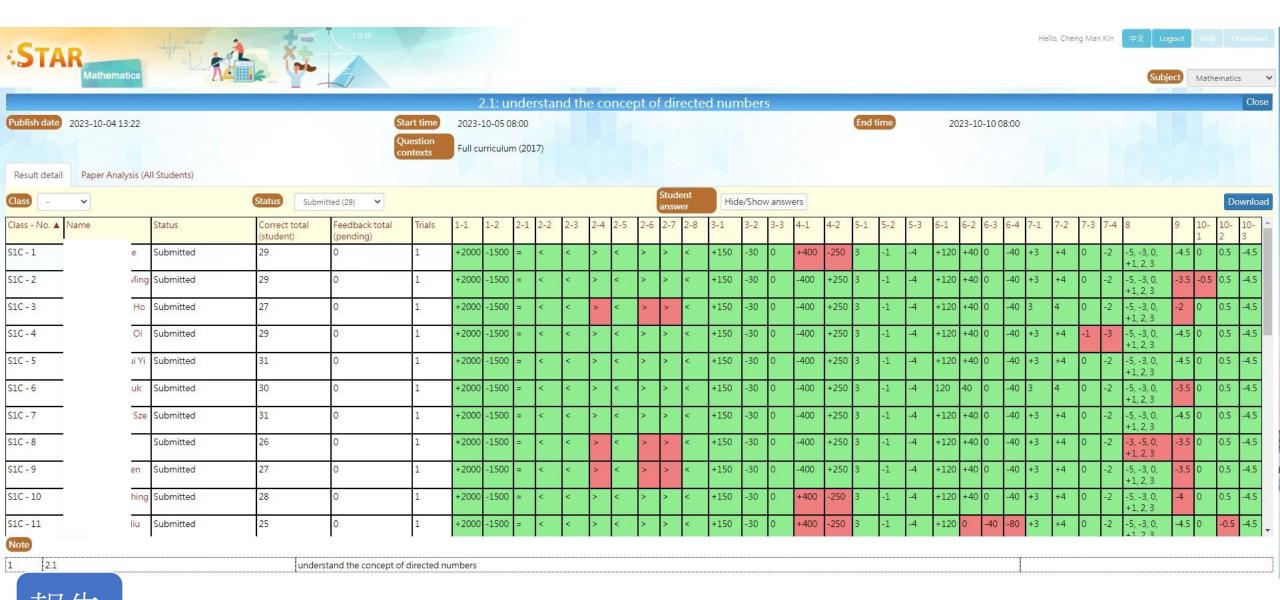
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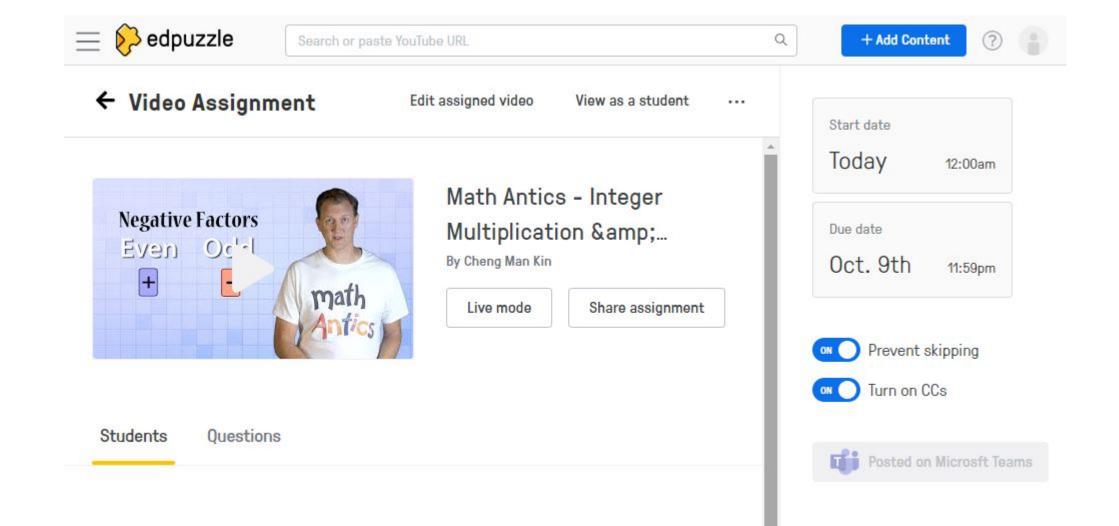
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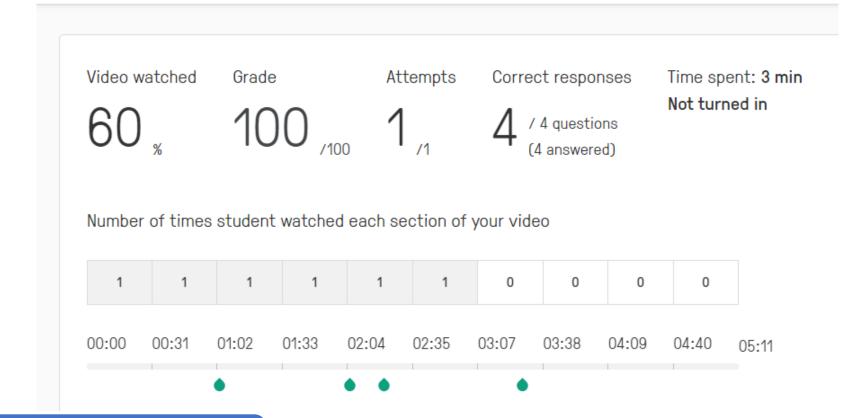
← 2023-2024 1C Mathematics / Profit and Loss Percent (The Easiest way ... /

Wong

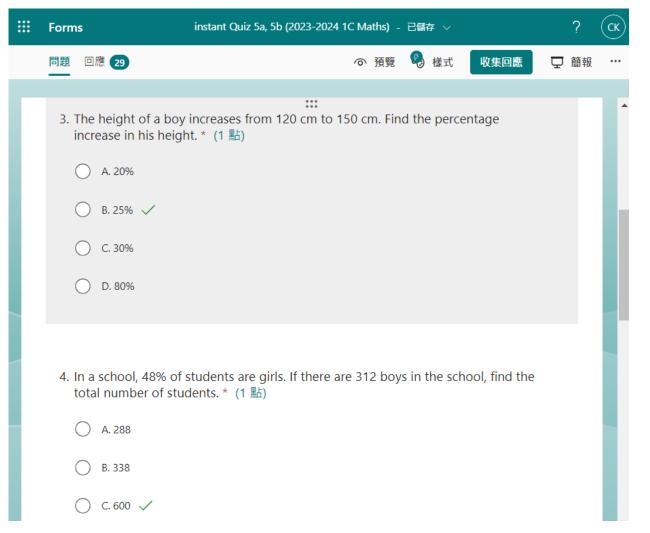
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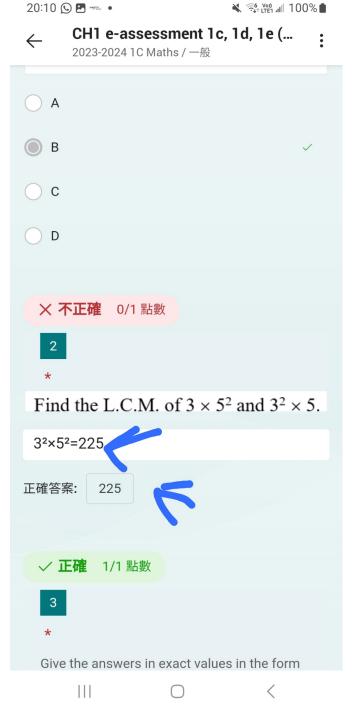
23/30 students



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Thank you