

eREAP – Mathspace 教學建議


Mathspace 平台的 **Custom Task** 功能可幫助同學在長假期溫習並掌握上學期的課題和**數學概念**，為其後的學習打好根基。

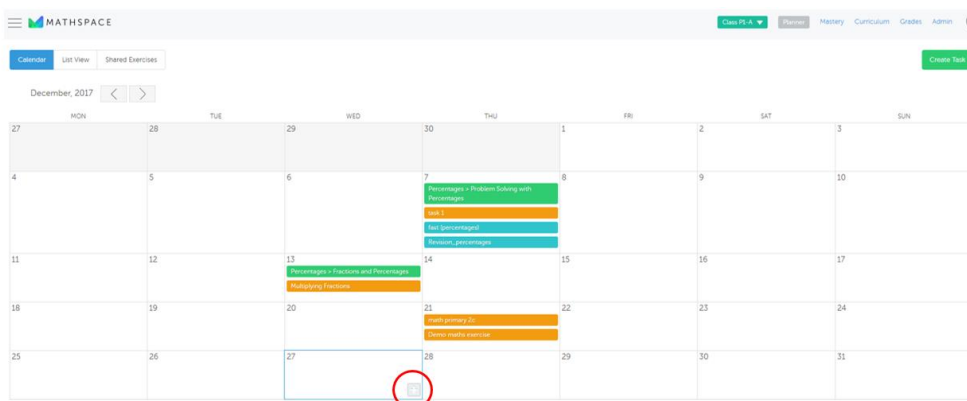
步驟一：尋找合適課題

我們推薦以下這些課題，教師可在 Mathspace 上瀏覽詳細內容。

高小	<ul style="list-style-type: none"> • Multiplying fractions 分數乘法 • Percentage of a quantity 百分數
初中	<ul style="list-style-type: none"> • Rational and irrational numbers 有理數與無理數 • Operations with rational and irrational numbers 有理數與無理數的運算
高中	<ul style="list-style-type: none"> • Trig functions and graphs (Key features of sine and cosine curves) 三角函數與其圖像 (主要特徵:正弦和餘弦的圖像) • Logarithms 對數 • Functions (Graphs and behaviour) (Transformations of functions) 函數與其圖像 (圖像變換)

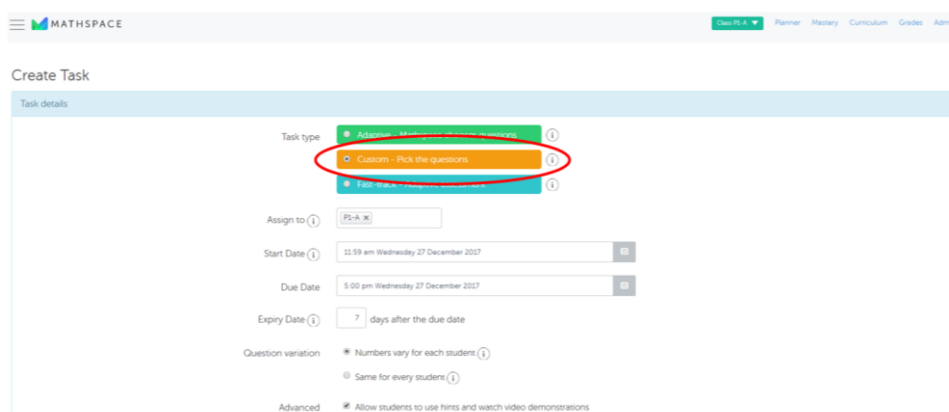
步驟二：建立 Custom Task

1. 首先，教師需登入平台，在主頁的 Planner 介面上點擊「」。

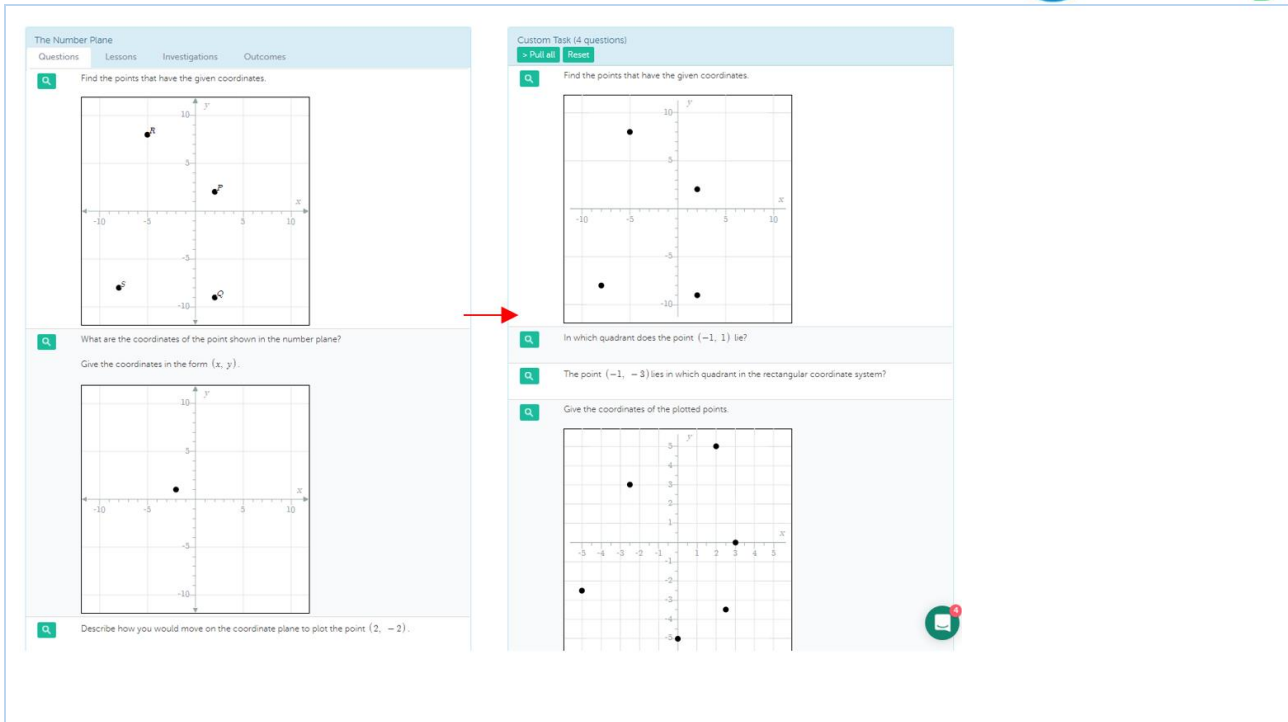


2. 然後，點選「Custom – Pick the questions」。

教師可按教學目標，選擇將練習派發予指定班別、開始及結束日期、題目顯示次序和題目提示。



3. 教師可按程度、課題及子題，選擇合適的題目，拉到右面的題目庫。



The Number Plane

Questions Lessons Investigations Outcomes

Find the points that have the given coordinates.

What are the coordinates of the point shown in the number plane?
Give the coordinates in the form (x, y) .

Describe how you would move on the coordinate plane to plot the point $(2, -2)$.

Custom Task (4 questions)

Find the points that have the given coordinates.

In which quadrant does the point $(-1, 1)$ lie?

The point $(-1, -3)$ lies in which quadrant in the rectangular coordinate system?

Give the coordinates of the plotted points.

4. 最後，教師為練習命名，並點擊「Save」以完成建立 Custom Task。

Final step

Save to shared exercises ⓘ

Name this task

Save

小貼士

- ◇ Custom Task 的理想長度為 15 分鐘左右，旨在了解學生是否已掌握該課題的基本概念。
- ◇ 先行解說題目內的字眼/符號，尤其是與沿用課本不同的字眼/符號。
- ◇ 於課堂上開啟成績報告，讓全班學生檢視自己的強弱項。針對較多學生答錯的題目，教授正確的運算方法。

eREAP – Mathspace Teaching Ideas

Make good use of **Custom Tasks** on Mathspace to help students to clear basic **Mathematics concepts** and get ready for challenges ahead.

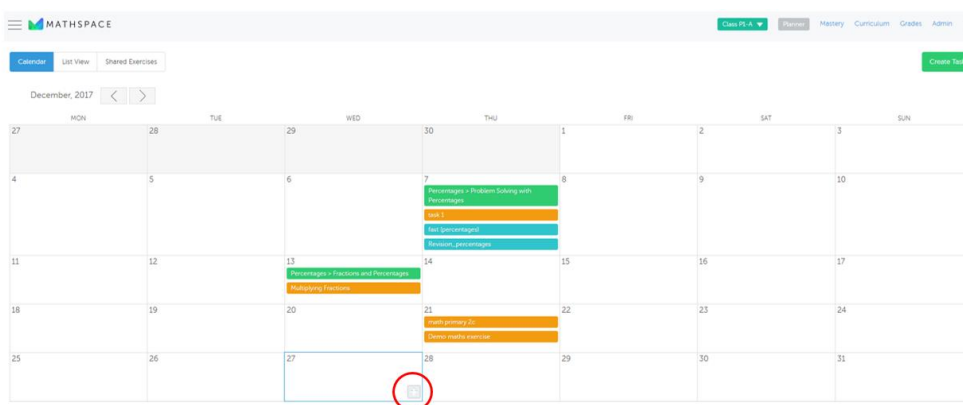
Step 1: Look for a suitable topic

Here are some recommended topics on Mathspace, please browse for details on Mathspace.

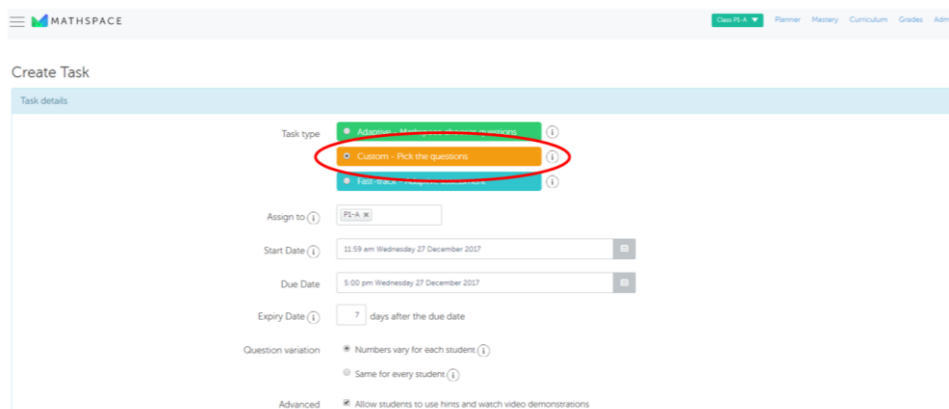
Senior Primary	<ul style="list-style-type: none"> • Multiplying fractions • Percentage of a quantity
Junior Secondary	<ul style="list-style-type: none"> • Rational and irrational numbers • Operations with rational and irrational numbers
Senior Secondary	<ul style="list-style-type: none"> • Trig functions and graphs (Key features of sine and cosine curves) • Logarithms • Functions (Graphs and behaviour) (Transformations of functions)

Step 2: Create a Custom Task

A. To begin with, log in and click ‘+’ on Planner page.



B. Then, click ‘Custom – Pick the questions’. Pick class, set up start and due date, question variation and hints depending on the learning objectives.

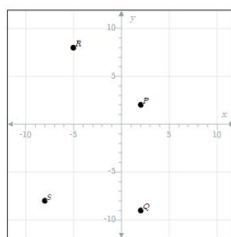


C. Based on the suitability of level, topic and subtopic, start choosing and dragging suitable questions to the question bank on the right.

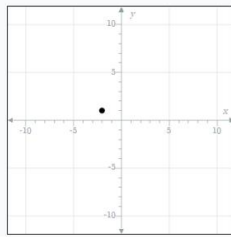
The Number Plane

Questions Lessons Investigations Outcomes

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What are the coordinates of the point shown in the number plane?
Give the coordinates in the form (x, y) .

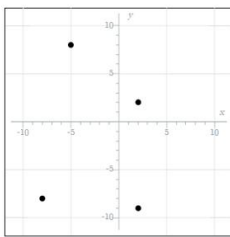


Describe how you would move on the coordinate plane to plot the point $(2, -2)$.

Custom Task (4 questions)

> Pull all | Reset

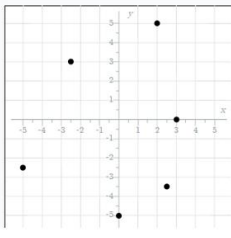
Find the points that have the given coordinates.



In which quadrant does the point $(-1, 1)$ lie?

The point $(-1, -3)$ lies in which quadrant in the rectangular coordinate system?

Give the coordinates of the plotted points.



D. Lastly, name the task and click 'Save' to complete setting up a Custom Task.

Final step

Save to shared exercises ⓘ

Name this task

Save

Tips

- ✧ Keep the Custom Task short in around 15 minutes. The point is to get to know whether students have understood basic concepts of a topic.
- ✧ Brief students on mathematical terms, especially those different from the textbook.
- ✧ Open and review the report of both classwork and homework with students in class, and dig deeper into questions most students answered wrongly.