Results of Primary 6 Mathematics in Territory-wide System Assessment 2025

The percentage of P.6 students achieving Mathematics Basic Competency in 2025 is 79.0%.

Primary 6 Assessment Design

The assessment tasks for P.6 were based on the *Basic Competency Descriptors for Key Stage 2 Mathematics Curriculum* and the *Mathematics Education Key Learning Area Curriculum Guide (Primary 1 – Secondary 6) (2017)*. The tasks covered the five strands of the Mathematics curriculum, i.e. Number, Measures, Shape & Space, Data Handling and Algebra.

The Assessment assumed students had already mastered the Basic Competencies covered in Key Stage 1 (Primary 1 to 3) and therefore focused primarily on the basic and important areas of the Key Stage 2 (Primary 4 to 6) curriculum, testing the concepts, knowledge, skills and applications relevant to these areas.

The Assessment consisted of various item types including multiple choice, fill in the blanks, solutions with working steps (or equations) required, as well as constructing statistical charts, with item types varying according to the context. Some of the items consisted of sub-items. Besides finding the correct answers, students were also tested on their ability to present the solutions to problems, including writing out the necessary statements, mathematical expressions, equations and explanations.

The Assessment consisted of 101 test items (135 score points) covering all of the 54 Basic Competency Descriptors of the five strands. These items were grouped into four sub-papers, each 50 minutes in duration and covering all five strands. Some items appeared in more than one sub-paper to act as inter-paper links and to enable the equating of test scores. Each student was required to attempt only one of the four sub-papers. The number of items in the various sub-papers is summarized in Table 8.4. These numbers include overlapping items.

Table 8.4 Number of Items and Score Points for P.6

Subject	Number of Items (Score Points)				
	Paper 1	Paper 2	Paper 3	Paper 4	Total *
Mathematics					
Written Paper					
Number	19 (23)	18 (22)	19 (23)	19 (23)	49 (61)
Measures	8.5 (10)	10 (11)	9.5 (11)	9.5 (11)	26 (30)
Shape and Space	4.5(7)	4 (7)	4.5 (7)	4.5 (7)	10 (16)
Data Handling	3 (6)	3 (6)	3 (6)	3 (6)	8 (16)
Algebra	4 (6)	4 (6)	3 (5)	3 (5)	8 (12)
Total	39 (52)	39 (52)	39 (52)	39 (52)	101 (135)

* Items that appear in different sub-papers are counted once only.

Performance of Primary 6 Students Achieving Basic Competency in 2025

P.6 Number Strand

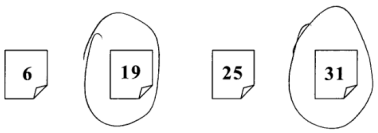
The performance of students in the Number Strand was quite good. Students generally understood the basic concepts and skills including the place values in whole numbers and decimals, the highest common factor and the least common multiple of two numbers, interconversion between fractions, decimals and percentages, comparison of the magnitude of decimals, performing the four arithmetic operations of whole numbers and decimals as well as estimating the result of calculations. Their performance was quite good in solving problems involving fractions or percentages and comparison of the magnitude of fractions. Their performance was fair in identifying prime numbers and composite numbers. However, students were quite weak in performing the four arithmetic operations in fractions; a small proportion of them confused common factors with common multiples. Further comments on their performance are provided below with examples from different sub-papers quoted in brackets.

Multi-digit Numbers

- Most students mastered the concept of place values (e.g. Q1/M2).
- Most students were able to arrange numbers in descending order (e.g. Q1/M1).

Multiples and Factors

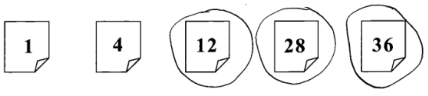
- The majority of students demonstrated recognition of multiples and factors (e.g. Q2/M1, Q3/M2).
- Students were fair in identifying prime numbers and composite numbers (e.g. Q2/M2).

Q2/M2
以下哪些數是質數？ （圈出所有答案） 

- A small proportion of students were not able to list all the factors of a number (e.g. Q2/M4).

Q2/M4
列出 21 的所有因數。 答案：1, 3, 7

- Quite a number of students could demonstrate recognition of common factors (e.g. Q3/M1) and find the common multiples of two numbers (e.g. Q4/M3). However, a small proportion of students mistook 28 as the common multiple of 4 and 12 in Q4/M3.

Q3/M1	Q4/M3
以下哪組數是 4 和 6 的所有公因數？ ● A. 1，2 ○ B. 1，4，6 ○ C. 1，2，3，4，6 ○ D. 12，24，36	Which of the following numbers are common multiples of 4 and 12? (Circle all the answers) 

- Many students could find the least common multiple (L.C.M.) (e.g. Q4/M1) and the highest common factor (H.C.F.) of two numbers (e.g. Q4/M4). However, a small proportion of students confused the highest common factor (H.C.F.) with the least common multiple (L.C.M.) in Q4/M4 and chose the incorrect option A.

Q4/M1	Q4/M4
The Least Common Multiple (L.C.M.) of 14 and 35 is ___70___ .	以下哪個數是 16 和 40 的最大公因數 (H.C.F.)？ ● A. 80 ○ B. 8 ○ C. 4 ○ D. 1

Fractions

- The majority of students were good at performing the interconversion between an improper fraction and a mixed number (e.g. Q5(a)/M1, Q5(a)/M2).
- The majority of students could grasp the concept of equivalent fractions (e.g. Q5(b)/M1, Q5(b)/M2).
- Many students were able to compare the magnitude of fractions (e.g. Q6/M1).

Decimals

- The majority of students were able to record numbers with decimals (e.g. Q7/M2).
- Many students demonstrated recognition of the place values in decimals. However, a minority of students confused the ‘tens place’ with the ‘tenths place’ (e.g. Q6/M4).

Q6/M4
以下哪個數中的「6」是在十分位？ ○ A. 0.1654 ○ B. 8.7569 ● C. 160.38 ○ D. 294.65

- Many students were capable of converting decimals into fractions (e.g. Q8/M3) and fractions into decimals (e.g. Q8/M1).
- The majority of students were able to compare the magnitude of decimals (e.g. Q9/M3).

Percentages

- The majority of students demonstrated recognition of percentages (e.g. Q9/M1).
- The majority of students were capable of converting percentages into fractions (e.g. Q10(a)/M1) and converting fractions into percentages (e.g. Q10(a)/M3).
- The majority of students were able to perform the interconversion between a percentage and a decimal (e.g. Q10(b)/M1, Q10(b)/M3).

Four Arithmetic Operations

- Students performed quite well in the four arithmetic operations of whole numbers (e.g. Q11/M1, Q10/M2, Q11/M3). In Q11/M3, a minority of students neglected the computation rule of 'doing division before subtraction' in performing the mixed operations of division and subtraction so that they chose the incorrect option A.

Q11/M3
$760 - 510 \div 5 =$ ● A. 50 ○ B. 102 ○ C. 658 ○ D. 748

- More than half of the students could perform the four arithmetic operations of fractions (e.g. Q12/M1, Q13/M1, Q11/M2, Q13/M3, Q13/M4). However, some students neglected the computation rule of 'doing division before subtraction' in performing the mixed operations of division and subtraction so that they mistook $\frac{5}{18}$ for the answer in Q13/M1.

Q13/M1
$1 - \frac{3}{8} \div 2\frac{1}{4} = \boxed{\frac{5}{18}}$

- The majority of students were able to perform the four arithmetic operations of decimals (e.g. Q14/M1, Q15/M1, Q14/M2, Q14/M3, Q15/M3).

Solving Problems

- The performance of students was good in solving problems involving the four arithmetic operations of whole numbers (e.g. Q16/M1).

Q16/M1
一本書有 170 頁。陳先生每天閱讀 25 頁，3 天後， 還有 95 頁是未閱讀的。

- Many students could solve problems involving the four arithmetic operations of fractions (e.g. Q19/M1, Q15/M2, Q16/M3, Q17/M3, Q16/M4). However, some students misunderstood the question and took $14\frac{1}{2}$ or 15 for the answer in Q15/M2.

Q15/M2
店員把 $3\frac{5}{8}$ L 橙汁倒進一些玻璃杯裏，每隻玻璃杯的 容量是 $\frac{1}{4}$ L，最多可倒滿 15 隻玻璃杯。 A shopkeeper pours $3\frac{5}{8}$ L of orange juice into some glasses. The capacity of each glass is $\frac{1}{4}$ L. At most $14\frac{1}{2}$ glass(es) can be filled up.

- The majority of students were able to solve problems involving the four arithmetic operations of decimals (e.g. Q17/M1, Q18/M3, Q19/M4).

Q19/M4

每支筆售 8.5 元。美妮有 36.5 元，買了 4 支筆後，還有多少元？

（列式計算）

36.5-8.5×4
=36.5-34
=2.5(元)

∴美妮還有2.5元。

- The performance of students was quite good in solving problems on percentages (e.g. Q18/M1, Q19/M3). However, some students could not find the correct percentage in Q18/M1.

Q18/M1

合唱團中有男團員 12 人，女團員 18 人。女團員佔全部團員的 18 %。

There are 12 male members and 18 female members in a choir. 88 % of all members are female.

- Most students were able to estimate the answer by choosing suitable approximate values (e.g. Q18/M4).

P.6 Measures Strand

Students performed quite well in the Measures Strand. In general, many students mastered the basic knowledge and concepts. They were able to find the perimeters of squares and rectangles, the areas of 2-D shapes and the volumes of cubes and cuboids. They could demonstrate recognition of the relationship between capacity and volume, and solve simple problems of speed. However, a few students mixed up perimeter, area and volume. Further comments on their performance are provided below with examples from different sub-papers quoted in brackets.

Time

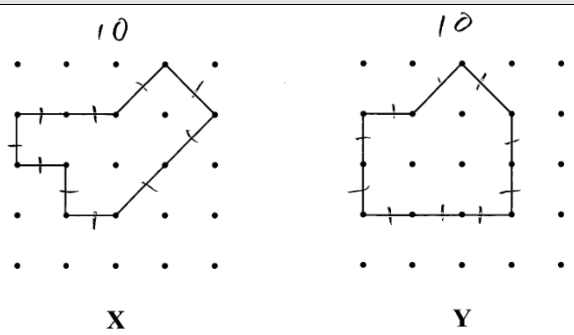
- The majority of students were able to solve problems related to time intervals. Given the starting time and finishing time, they could find the time interval (e.g. Q20/M3).

Q20/M3
一場電影在下午 2 時 30 分開始放映，並在 下午 4 時 38 分結束。這場電影的放映時間 是 128 分鐘。

Perimeter

- Students generally could measure and compare the perimeters of 2-D shapes (e.g. Q19/M2, Q21/M4). In Q21/M4, some students failed to compare the perimeters of 2-D shapes correctly and chose the incorrect option B as their answer.

Q21/M4



細閱上圖，以下哪項描述是正確的？

○ A. 無法比較 **X** 和 **Y** 的周界。

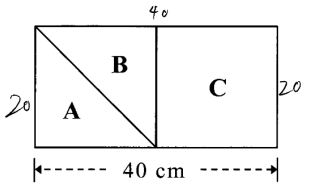
◉ B. **X** 和 **Y** 的周界相等。

○ C. **X** 的周界比 **Y** 的短。

○ D. **X** 的周界比 **Y** 的長。

- The majority of students were able to find the perimeters of squares and rectangles (e.g. Q20(a)/M1, Q21/M3) but a minority of students confused areas with perimeters.

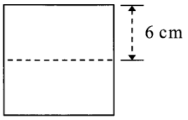
Q20(a)/M1



上圖的長方形由等腰直角三角形 **A**、**B** 和正方形 **C** 組成。

(a) 長方形的周界是 80 cm。

Q21/M3



Joe folded a square paper in half to form 2 equal rectangles (as shown in the diagram above).

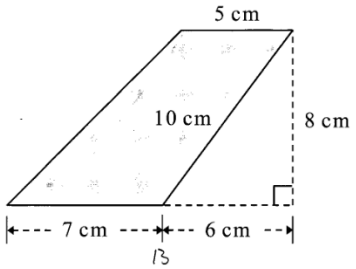
The perimeter of the square paper is 144 cm.

- The majority of students could demonstrate recognition of the relationship between circumferences and diameters (e.g. Q21/M1).
- The majority of students were able to find the circumference of a circle from its diameter (e.g. Q22(b)/M3).
- Many students could apply the formula of circumference in solving problems. A minority of students made mistakes in their calculations. A very small proportion of students confused the area of a circle with its circumference or the radius with the diameter (e.g. Q20/M2).

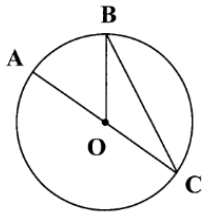
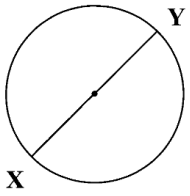
Q20/M2
一個圓形花圃的半徑是 14 m， 它的周界是 44 m。（取 π 值為 $\frac{22}{7}$） The radius of a circular flower bed is 14 m. Its circumference is 616 m. (Take π as $\frac{22}{7}$)

Area

- Most students could compare the areas of 2-D shapes using improvised units (e.g. Q23/M3).
- Quite a number of students were able to find the areas of 2-D shapes (e.g. Q22/M1).
- Quite a number of students could find the areas of triangles and parallelograms (e.g. Q20(b)/M1, Q22/M2).
- Many students could find the areas of squares and rectangles (e.g. Q25/M4).
- Students generally could find the areas of trapeziums, but some of them could not recognise the bases of a trapezium and chose the incorrect option C as their answer (e.g. Q25/M3).

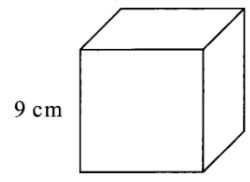
Q25/M3
   以上梯形的面積是多少？ ○ A. 48 cm^2 ○ B. 60 cm^2 ● C. 72 cm^2 ○ D. 96 cm^2

- Many students could find the areas of circles. However, a minority of students made mistakes in their calculations. A very small proportion of students confused the area of a circle with its circumference or the radius with the diameter (e.g. Q23(b)/M1, Q24/M3).

Q23(b)/M1	Q24/M3
下圖中，**O** 點是圓心。**A**、**B** 和 **C** 是圓周上的點。  (b) 圓的半徑是 7 cm，圓面積是 44 cm^2。 （取 π 值為 $\frac{22}{7}$） (b) The radius of the circle is 7 cm. The area of the circle is 22 cm^2. (Take π as $\frac{22}{7}$)	下圖中，**XY** 是圓內最長的線段。  **XY** is 10 cm long. The area of the circle is 314 cm^2. (Take π as 3.14) **XY** is 10 cm long. The area of the circle is 31.4 cm^2. (Take π as 3.14)

Volume

- The majority of students could express the volume of solids using 'cubic centimetre' (cm^3) (e.g. Q23/M2).
- Many students were able to find the volumes of cubes and cuboids (e.g. Q24/M1, Q24/M2, Q26(a)/M3). In Q24/M1, a minority of students confused area with volume.

Q24/M1
   上圖正方體的體積是 81 cm^3。

- The majority of students could demonstrate recognition of the relationship between capacity and volume (e.g. Q26(b)/M3, Q27/M1).
- Students performed quite well in finding the volume of irregular solids by displacement of water (e.g. Q25/M1, Q27/M3).

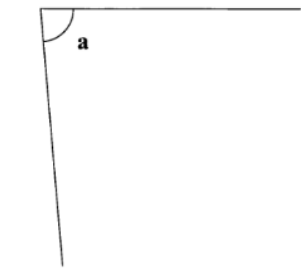
Speed

- Most students could express the swimming speed of an athlete in 'metres per second' (m/s) (e.g. Q28/M4).
- Many students could solve simple problems of speed (e.g. Q26/M1, Q28/M3).

Q26/M1
小詩參加了單車比賽。她騎單車走了 200 米，只需 16 秒。她騎單車的平均速率是 12.5 米每秒。

Angle

- The majority of students were able to measure the size of an angle (e.g. Q29/M4).

Q29/M4
用量角器量度下面∠a。    ∠a = 85° （答案須寫上單位）

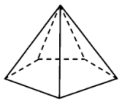
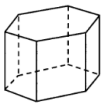
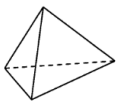
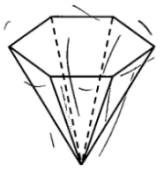
- The majority of students were able to compare the sizes of angles (e.g. Q29/M3).

P.6 Shape & Space Strand

Students performed well in the Shape & Space Strand. They have a good understanding of the properties of 3-D shapes and 2-D shapes as well as the eight compass points. In general, students could identify symmetric 2-D shapes and find the axes of symmetry of symmetric 2-D shapes. Further comments on their performance are provided below with examples from different sub-papers quoted in brackets.

3-D and 2-D Shapes

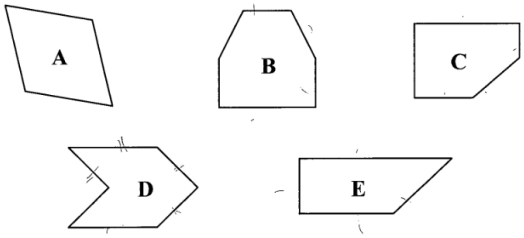
- The majority of students were able to identify 3-D shapes by the number of vertices (e.g. Q30/M1).
- The majority of students were able to find the correct numbers of edges of 3-D shapes (e.g. Q30/M3).

Q30/M1	Q30/M3
Which of the following 3-D shapes has 6 vertices?  ● A.  ○ B.  ○ C.  ○ D.	 上圖是一個立體圖形， 它有 12 條稜。

- Students excelled in demonstrating recognition of the properties of circles. (e.g. Q23(a)/M1, Q22(a)/M3).
- Students performed well in demonstrating recognition of the properties of parallelograms and rhombuses (e.g. Q31/M1, Q31/M3).
- Generally, students could identify trapeziums. However, some students mistook the hexagon of a particular shape as a trapezium (e.g. Q32(b)/M2).

Q32(b)/M2

觀察下面的平面圖形，寫出所有代表答案的英文字母。



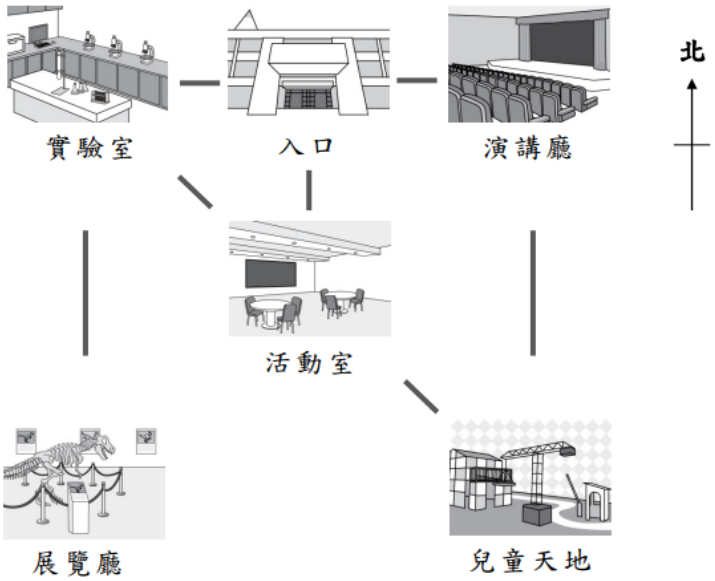
(b) 梯形：E, B

Directions and Positions

- Students performed well in solving problems involving the eight compass points (e.g. Q33/M1, Q33/M2).
- A small proportion of students were unable to ascertain the correct direction relative to the reference point (e.g. Q33(b)/M2).

Q33(b)/M2

以下是科學館的地圖。



(b) 實驗室在展覽廳的 南 方。

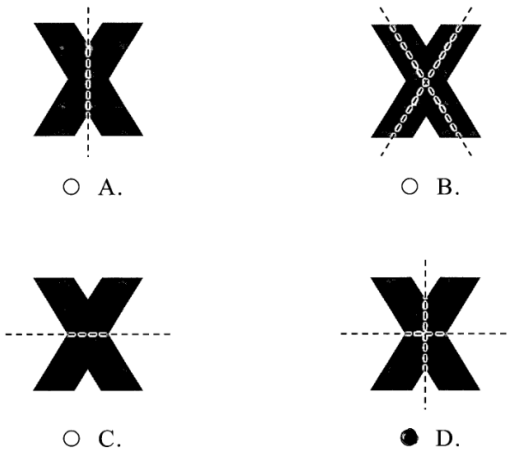
(b) Laboratory is to the South (direction) of Exhibition Hall.

Symmetry

- The majority of students could identify symmetric 2-D shapes (e.g. Q32/M1).
- Most students were able to find the axes of symmetry of the symmetric 2-D shapes (e.g. Q30/M2).

Q30/M2

以下哪幅圖中的虛線能標示圖形的所有對稱軸？

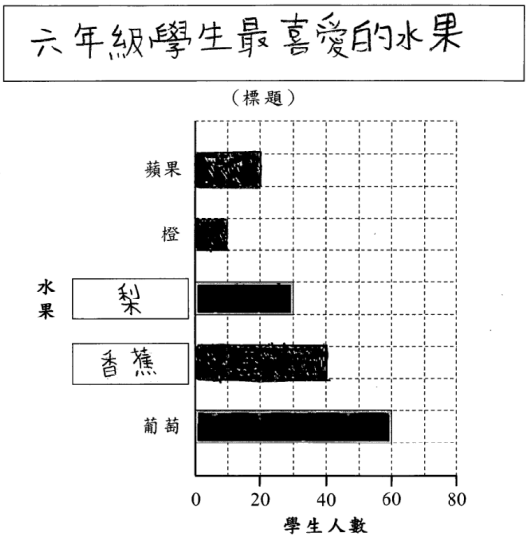


P.6 Data Handling Strand

The performance of students in the Data Handling Strand was good. Students were good at interpreting bar charts and broken line graphs. Their performance was good in interpreting pie charts involving simple calculations. The majority of students were able to construct accurate bar charts and broken line graphs. They were quite good in calculating the average of a group of data and solving simple problems of averages. Further comments on their performance are provided with examples from different sub-papers quoted in brackets.

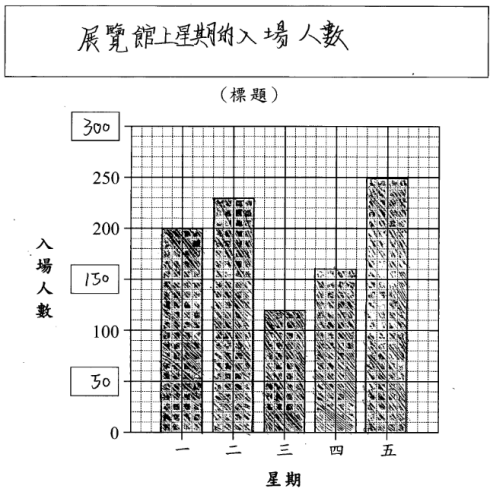
Bar Charts

- Most students were capable of reading the data from bar charts (e.g. Q38(a)/M3). Only a minority of students were unable to use the data from the bar charts to answer questions involving simple calculations (e.g. Q38(b)/M3).
- The majority of students were able to construct bar charts and add the titles appropriately (e.g. Q39/M1).

Q39/M1
根據以上資料，用鉛筆完成下面的棒形圖，並加上標題和水果名稱。 

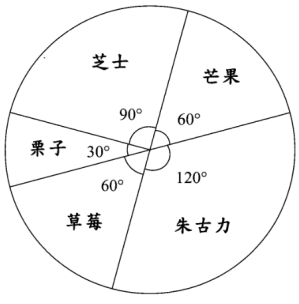
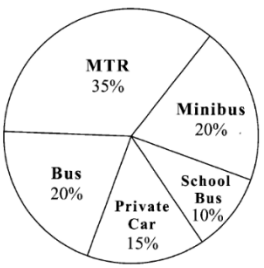
Broken Line Graphs

- Most students were able to read the data from broken line graphs (e.g. Q38(a)/M2). Only a minority of students were unable to use the extracted data for comparison to solve problems (e.g. Q38(b)/M2).
- In constructing broken line graphs, the majority of students could give proper titles and add correct scales along the vertical axis (e.g. Q39(1)(2)/M3).
- In Q39(3)/M3, many students were able to draw accurate broken line graphs. However, a very small proportion of students did not follow the instructions and mistakenly used bar charts to represent the data.

Q39/M3
根據以上資料，用鉛筆完成下面的折線圖，並加上標題和刻度。 

Pie Charts

- Most students were able to read the data from pie charts and solve problems involving simple calculations (e.g. Q38(b)/M1, Q38(a)/M4).
- A minority of students were unable to use the data from pie charts to answer questions involving percentages or fractions (e.g. Q38(a)/M1, Q38(b)/M4).

Q38(a)/M1	Q38(b)/M4
餅店售出 60 個蛋糕。以下圓形圖顯示餅店售出蛋糕的種類。 **餅店售出蛋糕的種類**  (a) 售出數量最多的是 朱古力 蛋糕，有 120 個。	Miss Chan conducted a survey of 500 pupils to understand the transportation they used to go to school and constructed the pie chart below. Each pupil chose one type of transportation only. **Transportation Used by Pupils to Go to School**  (b) The number of pupils who go to school by School Bus was the smallest. There were 10 pupils.

Averages

- The performance of students was quite good in calculating the average of a group of data (e.g. Q34/M3).
- Many students were able to solve problems of averages (e.g. Q29/M1).

P.6 Algebra Strand

The performance of students in the Algebra Strand was quite good. The majority of them were able to use algebraic expressions and demonstrate recognition of equations. Many students were able to solve simple equations which did not involve collecting like terms and solve problems by using simple equations. More detailed comments on their performance are provided below with examples from different sub-papers quoted in brackets.

Elementary Algebra

- The majority of students could use algebraic expressions to represent the operations of and relations between quantities that are described in words and involve unknown quantities (e.g. Q34/M1, Q34/M2).

Simple Equations

- Students were good at demonstrating recognition of equations (e.g. Q35/M1).
- Students performed quite well in solving simple equations (e.g. Q36/M1, Q36/M2, Q36/M4). However, some students were unable to use the principle of balancing equations and were careless in calculating the answer (e.g. Q36/M2).

Q36/M2	
$\frac{b}{4} + 16 = 21$ $b =$ 80	$\frac{b}{4} + 16 = 21$ $b =$ 1.25

- Quite a number of students were able to solve problems by setting up an equation according to the context and showing the working steps (e.g. Q37/M1, Q37/M2). However, some students failed to construct correct equations or missed brackets when setting up the equation (e.g. Q37/M1).

Q37/M1	
某數加 4 後乘以 2 等於 18。用**解方程的方法**求該數。 （列方程計算）	
設某數是 y。 $\frac{y+4}{2}=18$ $\frac{y+4}{2}\times 2=18\times 2$ $y+4=36$ $y+4-4=36-4$ $y=32$ ∴某數是32。	Let the number be y. $2y+4=18$ $2y+4-4=18-4$ $2y=14$ $\frac{2y}{2}=\frac{14}{2}$ $y=7$ The number is 7.

General Comments on Primary 6 Student Performances

- The overall performance of P.6 students was quite good in the TSA 2025 Mathematics assessment. Students generally mastered the basic concepts and computational skills stipulated in the document *Basic Competency Descriptors for Key Stage 2 Mathematics Curriculum*.

- The performance of students in the Number Strand was quite good. Students were capable of demonstrating recognition of the place values in whole numbers and decimals, finding the highest common factor and the least common multiple of two numbers, performing the interconversion between fractions, decimals and percentages, comparing the magnitude of decimals, performing the four arithmetic operations involving whole numbers and decimals as well as estimating the result of calculations. Their performance was quite good in solving problems involving fractions or percentages and comparing the magnitude of fractions. Their performance was fair in demonstrating recognition of prime numbers and composite numbers. However, students need to strengthen their understanding of common factors and common multiples as well as performing the four arithmetic operations involving fractions.

- Students performed quite well in the Measures Strand. Students were able to find the perimeters of squares and rectangles, the areas of 2-D shapes and the volumes of cubes and cuboids. They could demonstrate recognition of the relationship between capacity and volume, solve simple problems of speed as well as measure and compare the sizes of angles. However, a minority of students required further reinforcement on the understanding of some basic concepts such as perimeter, area and volume.

- Students performed well in the Shape & Space Strand. They have a good understanding of the properties of 3-D shapes and 2-D shapes as well as the eight compass points. Students generally were able to identify symmetric 2-D shapes and find the axes of symmetry of symmetric 2-D shapes. However, some students mistook a hexagon of a particular shape as a trapezium.

- The performance of students in the Data Handling Strand was good. Students were good at interpreting bar charts, broken line graphs and pie charts. Only a minority of students were unable to use the data from the statistical graphs to answer questions involving simple calculations. Students showed good performance in constructing bar charts. The performance of students was quite good in constructing broken line graphs. However, a very small proportion of students did not follow the instructions and mistakenly used bar charts to represent the data for broken line graphs. The performance of students was quite good in calculating the average of a group of data and solving simple problems of averages.

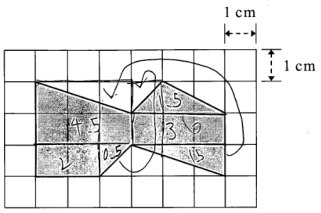
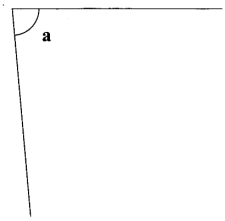
- Students performed quite well in the Algebra Strand. The majority of them were able to use algebraic expressions to represent the operations of and relations between quantities that are described in words and involve unknown quantities. The majority of them were also able to demonstrate recognition of equations. Students performed quite well in solving simple equations that did not require collecting like terms. Quite a number of them could solve problems using simple equations.

Good Performance of Primary 6 Students in 2025

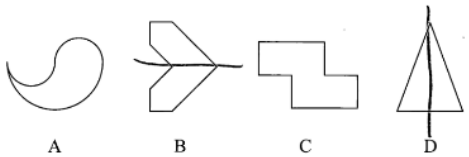
- Students with good performance demonstrated mastery of the concepts, calculations and problem-solving skills assessed by the sub-papers. They were able to identify the prime numbers and composite numbers. They have a good understanding of common factors and common multiples. They were good at performing the four arithmetic operations, and capable of solving problems involving fractions and percentages.

Q19/M1	Q19/M3
Sam has 72 blocks. $\frac{2}{9}$ of them are yellow and $\frac{1}{3}$ are red. How many yellow and red blocks are there altogether? (Show your working) $72 \times (\frac{2}{9} + \frac{1}{3})$ $= 72 \times (\frac{2}{9} + \frac{3}{9})$ $= 72 \times \frac{5}{9}$ $= 40$ There are 40 red blocks and yellow blocks altogether.	網上練習有 40 道題目。貝兒完成了全部題目的 70%，未完成的題目有多少道？ （列式計算） $40 \times (1 - 70\%)$ $= 40 \times \frac{30}{100}$ $= 12$ 未完成的題目有12道。

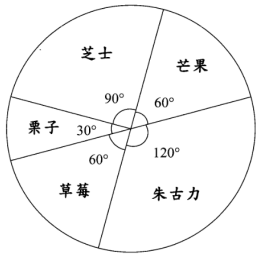
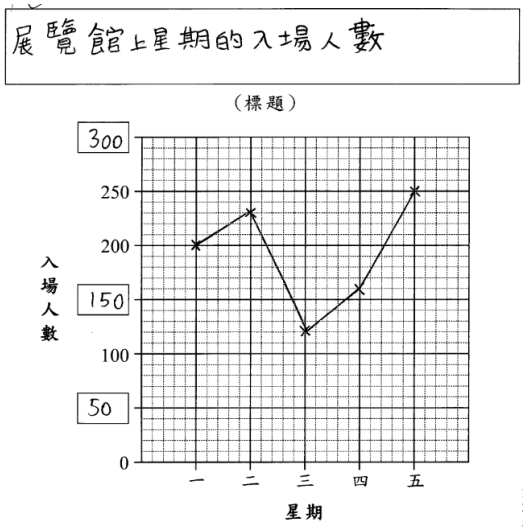
- Students with good performance were able to find the perimeters and the areas of 2-D shapes as well as the volumes of cubes and cuboids. They could demonstrate recognition of the relationship between capacity and volume. They were capable of solving problems of speed and correctly measuring the sizes of angles.

Q22/M1	Q29/M4
下圖中，每個方格的邊長是 1 cm。  陰影部分的面積是 13 cm^2。	Measure ∠a below with a protractor.  ∠a = 85° (Give the answer with a unit)

- Students with good performance were good at identifying 3-D shapes and 2-D shapes, the eight compass points as well as the symmetric 2-D shapes.

Q32/M1
觀察下面的平面圖形，寫出所有代表答案的英文字母。    列出軸對稱圖形。 答案：B、D

- Students with good performance were able to interpret pie charts involving simple calculations. They could construct broken line graphs correctly and add proper titles.

Q38/M1	Q39/M3
餅店售出 60 個蛋糕。以下圓形圖顯示餅店售出蛋糕的種類。 餅店售出蛋糕的種類  (a) 售出數量最多的是 朱古力 蛋糕，有 20 個。 (b) 芝士 蛋糕的售出數量是栗子蛋糕的 3 倍。	根據以上資料，用鉛筆完成下面的折線圖，並加上標題和刻度。 

- Students with good performance were able to use algebraic expressions to represent the operations of and relations between quantities that are described in words and involve unknown quantities. They could use equations in solving problems and show the correct steps in solving equations.

Q37/M1	Q37/M2
A number plus 4 is multiplied by 2. The result is 18. Find the number by ***the method of solving an equation.*** (Show your working) Let the number be x. $2(x+4)=18$ $\frac{2(x+4)}{2}=\frac{18}{2}$ $x+4-4=9-4$ $x=5$ ∴ The number is 5.	莉莉買了 13 個氣球和 1 架玩具車，共付 $38。每架玩具車的售價是 $12，每個氣球的售價是多少？ **（列方程計算）** 設每個氣球的售價是 y 元。 $13y+12=38$ $13y+12-12=38-12$ $13y=26$ $\frac{13y}{13}=\frac{26}{13}$ $y=2$ 每個氣球的售價是2元。

Overview of Primary 6 Student Performances in Mathematics in 2019, 2023 and 2025

The percentages of P.6 students achieving Mathematics Basic Competency in 2019, 2023 and 2025 are provided below.

Table 8.5 Percentages of P.6 Students Achieving Mathematics Basic Competency in 2019, 2023 and 2025^**

Year	% of Students Achieving Mathematics Basic Competency
2019	84.2
2023	78.3
2025	79.0

^ As participation in the 2024 P.6 TSA was on a voluntary basis, not all P.6 students were involved and hence no territory-wide data is provided in this report.

** Due to the volatility of the COVID-19 epidemic, the TSA 2020, 2021 and 2022 were suspended and no data was provided.

A comparison of the strengths and weaknesses of P.6 students in Mathematics in 2019, 2023 and 2025 provides useful information for teachers to help students improve their learning. Table 8.6 provides an overview of student performances in each of the five strands for these years.

Table 8.6 Overview of P.6 Student Performances in Mathematics in 2019, 2023 and 2025

Year / Number	2019	2023	2025	Remarks
Strengths	• Students were able to master basic concepts including the place values of digits in whole numbers and decimals; factors and multiples; fractions, decimals and percentages. • Students were able to perform the four arithmetic operations involving whole numbers, fraction, decimals and percentages. • Students showed their solutions and working steps clearly in solving application problems. • Students were capable of choosing appropriate methods of estimation.	• Students were able to demonstrate recognition of whole numbers, decimals and percentages as well as master the concept of multiples and factors. • Students were able to perform the interconversion between fractions, decimals and percentages. They could also compare the magnitude of fractions and decimals. • Students were capable of performing the four arithmetic operations of whole numbers, decimals and percentages. • Students showed their solutions and working steps clearly in solving problems. • Students were able to estimate the answer by choosing suitable approximate values.	• Students were able to demonstrate recognition of whole numbers, decimals and percentages as well as master the concept of multiples and factors. • Students were able to perform the interconversion between fractions, decimals and percentages. They could also compare the magnitude of decimals. • Students could perform the four arithmetic operations of whole numbers, decimals and percentages. • Students showed their solutions and working steps clearly in solving problems. • Students were able to estimate the answer by choosing suitable approximate values.	• A minority of students neglected the computation rule of 'doing division before subtraction' in performing the mixed operations of division and subtraction.
Weaknesses	• Students easily confused the place values in decimals, the common factors and the common multiples, etc. • Some students neglected the rule of 'doing division before subtraction' in problems involving mixed operations. • There was room for improvement in answering application problems involving fractions. .	• Students were weak in identifying prime numbers and composite numbers. • A small proportion of students confused the common factors with the common multiples and did not completely understand the place values of decimals. • There was room for improvement in solving problems involving fractions or percentages.	• A small proportion of students confused the common factors with the common multiples. • Students were quite weak in performing four arithmetic operations of fractions.	

Year / Measures	2019	2023	2025	Remarks
Strengths	• Students were capable of choosing appropriate units of measurement for recording length, weight and capacity. • Students were able to measure and compare the perimeter of 2-D shapes as well as the capacity of containers. • Students were able to find the perimeter and area of 2-D shapes. • Students were capable of finding the volume of solids. • Students were able to recognise the relationship between the volume and the capacity. • Students were able to apply the formula of speed	• Students were able to find the perimeters of squares and rectangles as well as the areas of 2-D shapes. • Students were able to find the volumes of cubes and cuboids. They could also find the volume of irregular solids by displacement of water. • Students were capable of solving simple problems of speed. • Students were able to compare the sizes of angles.	• Students were able to find the perimeters of squares and rectangles as well as the areas of 2-D shapes. • Students were able to find the volumes of cubes and cuboids. They could also find the volume of irregular solids by displacement of water. • Students were capable of solving simple problems of speed. • Students were able to measure and compare the sizes of angles.	• A minority of students mixed up perimeter, area and volume.
Weaknesses	• There is room for improvement in finding the area of irregular 2-D shapes. Some students did not master the relationship between the circumference and diameter of circles.	• There was room for improvement in measuring the sizes of angles. • A small proportion of students were not able to demonstrate recognition of the relationship between capacity and volume.	• Some students failed to compare the perimeters of 2-D shapes.	

Year / Shape &Space	2019	2023	2025	Remarks
Strengths	• Students' performance was stable in identifying 2-D shapes and 3-D shapes. • Students were able to recognise the characteristics of different 2-D shapes. • Students were capable of recognising the eight compass points. • The performance of students improved when the 'north' direction on a map was not pointing upward.	• Students were able to demonstrate recognition of the properties of 3-D shapes, involving vertices, edges and faces of 3-D shapes. • Students were able to demonstrate recognition of the properties of 2-D shapes. • Students could demonstrate recognition of the eight compass points. • Students were able to find the axes of symmetry of symmetric 2-D shapes.	• Students were able to demonstrate recognition of the properties of 3-D shapes. • Students were able to demonstrate recognition of the properties of 2-D shapes. • Students could demonstrate recognition of the eight compass points. • Students were able to find the axes of symmetry of symmetric 2-D shapes.	• Different examples of 2-D shapes can be shown in measuring activities.
Weaknesses	• Some students were not capable of classifying 2-D shapes. • Some students could not judge the direction relative to a reference point.	• Some students mixed up isosceles triangles and equilateral triangles, parallelograms and rhombuses. • Some students were not able to identify symmetric 2-D shapes.	• Some students mistook a hexagon of a particular shape as a trapezium.	

Year / Data Handling	2019	2023	2025	Remarks
Strengths	• Students were capable of reading data presented in statistical graphs and answering related questions. • Students performed well in drawing pictograms and bar charts. • Students were capable of finding the average of a group of data and solving simple problems of averages.	• Students were able to read data from bar charts and broken line graphs and answer related questions. • Students were good at constructing bar charts.	• Students were capable of reading data from bar charts and broken line graphs and answering questions involving simple calculations. • Students showed good performance in constructing bar charts.	• Teachers can present examples of the application of bar charts and broken line graphs, and guide students to observe and understand their similarities, differences and characteristics in data presentation.
Weaknesses	• Some students added inappropriate titles to statistical graphs.	• A very small proportion of students mixed up broken line graphs and bar charts. • Some students were unable to calculate the average of a group of data and solve simple problems of averages.	• A very small proportion of students did not follow the instruction that required the use of broken line graphs and mistakenly used bar charts to represent the data.	

Year / Algebra	2019	2023	2025	Remarks
Strengths	• Students were capable of using symbols to represent numbers and understood the concept of equations. • Students were capable of solving equations up to two steps. • In solving application problems by equations, students could define the symbol used and write down the correct equation and conclusion.	• Students were able to use algebraic expressions to represent the operations of and relations between quantities and unknown quantities. • Students were capable of solving equations not involving collecting like terms. • In solving problems by using equations, students could define the symbol used and write down the correct equation and conclusion.	• Students were able to use algebraic expressions to represent the operations of and relations between quantities that are described in words and involve unknown quantities. • Students were capable of solving equations not involving collecting like terms. • In solving problems by using equations, students were able to clearly define the symbols used, show the steps involved in solving equations and write down the correct conclusions.	• A very small proportion of students missed brackets when solving problems.
Weaknesses	• Some students misunderstood the meaning of the question and could not set up a correct equation.	• A small proportion of students misunderstood the meaning of the question and could not set up the correct equation.	• A small proportion of students misunderstood the meaning of the question and could not set up the correct equation.	