Results of Primary 6 Mathematics in Territory-wide System Assessment 2019

The territory-wide percentage of P.6 students achieving Mathematics Basic Competency in TSA 2019 is 84.2%.

Primary 6 Assessment Design

The assessment tasks for P.6 were based on the *Basic Competency at the end of KS2 for the Mathematics Curriculum (Trial Version)* and the *Mathematics Education Key Learning Area – Mathematics Curriculum Guide (P1 – P6), 2000*. The tasks covered the five dimensions 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 included a number of item types including multiple choice, fill in the blanks, solutions with working steps (or equations) required, as well as open-ended questions in which students were required to justify their answers, 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 the ability to present their solutions to problems, including writing out the necessary statements, mathematical expressions, equations and explanations.

The Assessment consisted of 89 test items (131 score points) covering the five Dimensions. These items were grouped into four sub-papers, each 50 minutes in duration and covering all five dimensions. Some items appeared in more than one sub-paper to provide inter-paper links. 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 that appear in more than one sub-paper.

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	21 (25)	21 (25)	18 (22)	18 (21)	48 (58)
Measures	6 (11)	7 (14)	6½ (13)	6 (12)	16½ (31)
Shape and Space	3 (6)	3 (6)	4½ (8)	5 (8)	8½ (15)
Data Handling	3 (6)	3 (5)	3 (6)	3 (5)	8 (15)
Algebra	3 (5)	2 (4)	4 (6)	4 (6)	8 (12)
Total	36 (53)	36 (54)	36 (55)	36 (52)	89 (131)

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

Performance of Primary 6 Students Achieving Basic Competency in 2019

P.6 Number Dimension

P.6 students performed satisfactorily in the Number Dimension. The majority of students understood the basic concepts including the place values in whole numbers and decimals, common factors and common multiples, conversion between fractions, decimals and percentages, arithmetic operations and methods of estimation, etc.. However, some students confused common factors with common multiples. They were also weak in solving application problems involving fractions and percentages. Further comments on their performance are provided below with examples from different sub-papers quoted in brackets.

Understanding basic concepts

- Most students mastered the concept of place values (e.g. Q1/M1, Q1/M3).
- Most students were able to correctly arrange numbers in descending order (e.g. Q1/M4).

Multiples and factors

- The majority of students recognized multiples and factors (e.g. Q2/M1, Q2/M3).
- Some students were not able to use the listing method to find all the factors of a number (e.g. Q3/M1).

Q3/M1

列出 93 的所有因數。

答案：1, 93, 3

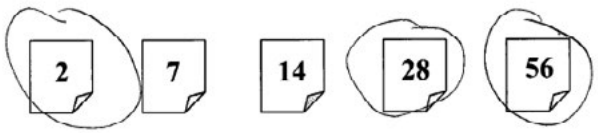
答案：1、3、31

- The majority of students could recognize common factors (e.g. Q3/M3, Q2/M4) and find the common multiples of two numbers (e.g. Q6/M1). However, some students confused common factors with common multiples (e.g. Q3/M4).

Q3/M4

以下哪些數是 4 和 14 的公倍數？

（圈出所有答案）



- Some students could not find the highest common factor (H.C.F.) (e.g. Q4/M1) or the least common multiple (L.C.M.) of two numbers (e.g. Q4/M3).

Q4/M1

8 和 36 的最大公因數 (H. C. F.) 是 72 。

Q4/M3

8 和 18 的最小公倍數 (L.C.M.) 是

○ A. 2。
○ B. 36。
◉ C. 72。
○ D. 144。

Fractions

- The majority of students understood fractions as parts of one whole (e.g. Q7/M1).
- Most students could grasp the relationship between a fraction and the whole (e.g. Q5/M1).
- The majority of students excelled in converting mixed numbers into improper fractions and vice versa (e.g. Q8/M1).
- The majority of students could grasp the concept of equivalent fractions (e.g. Q6/M3).
- The majority of students were able to compare fractions correctly (e.g. Q9/M1).

Decimals

- The majority of students were able to record numbers with decimals (e.g. Q14/M4).
- The majority of students understood the place values in decimals (e.g. Q8/M3, Q8/M4) but some of them confused the 'tens place' or 'tenths place' with the 'hundredths place' (e.g. Q11/M1).

Q11/M1

在 0.854 這個數中，數字「5」代表的數值是多少？ ○ A. 5 ○ B. $\frac{5}{10}$ ○ C. $\frac{5}{100}$ ● D. 50	在 0.854 這個數中，數字「5」代表的數值是多少？ ○ A. 5 ● B. $\frac{5}{10}$ ○ C. $\frac{5}{100}$ ○ D. 50

- Some students were not capable of converting decimals into fractions (e.g. Q10/M1) or fractions into decimals (e.g. Q7/M3).

Q10/M1
化 0.16 為分數，並約至最簡。 答案：$\frac{0.4}{25}$
Q7/M3
化 $\frac{6}{7}$ 為小數，答案取至小數點後兩個位。 答案：0.57

Percentages

- The majority of students understood the percentages (e.g. Q20/M2).
- The majority of students were capable of converting fractions into percentages but their performance was weaker when converting percentages into fractions (e.g. Q18/M3).
- The majority of students were capable of converting percentages into decimals and vice versa (e.g. Q17/M1).

Performing basic calculations

- The majority of students were able to perform the four arithmetic operations on whole numbers including the handling of brackets (e.g. Q12/M1, Q9/M3).
- Some students could not handle mixed operations involving division and subtraction. For instance, some students neglected the computation rule of 'doing division before subtraction' in Q11/M2 and wrongly chose option A as the answer.

Q11/M2

$$600 - 550 \div 5 =$$

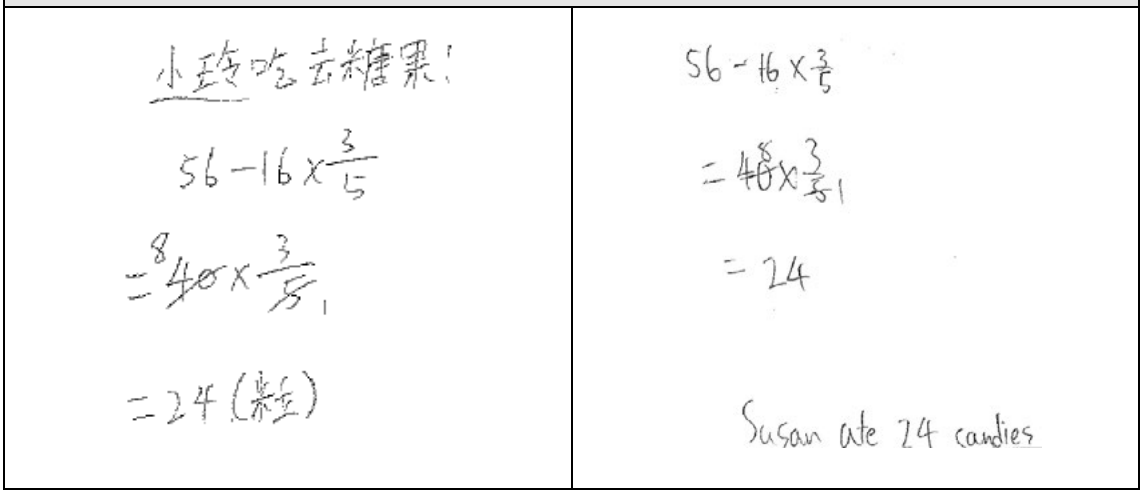
- ● A. 10
- ○ B. 490
- ○ C. 589
- ○ D. 590

- The majority of students were capable of carrying out the four arithmetic operations involving fractions (e.g. Q13/M1, Q14/M1, Q11/M3, Q12/M3).
- The majority of students were able to perform the four arithmetic operations involving decimals (e.g. Q15/M1, Q16/M1). However, some students were weaker in doing division of decimals (e.g. Q15/M2, Q10/M3).

Solving application problems

- Generally, students were able to solve application problems involving whole numbers and fractions (e.g. Q18/M1, Q16/M2, Q15/M4, Q16/M4). In Q16/M3, some students missed the brackets in writing the mathematical expression.

Q16/M3



- Some students were not able to solve application problems involving the division of decimals (e.g. Q13/M4).

Q13/M4

木尺每把長 1 m，膠尺每把長 0.4 m。

木尺的長度是膠尺的 0.6 倍。

- Some students could not solve application problems involving money. For instance, in Q19/M1, some students confused the number of parcels with the weight of parcels and hence calculated the wrong amount.
- The majority of students could solve application problems involving discounts (e.g. Q20/M1). However, some students could not find the correct percentage (e.g. Q21/M2).

Q21/M2

一盒朱古力有 40 粒，小卓吃去 5 粒。

小卓吃去全盒朱古力的 25 %。

- The majority of students were able to choose a suitable method for estimating the amount of money that was payable or saved (e.g. Q21/M1, Q14/M3).

P.6 Measures Dimension

The students performed satisfactorily in the Measures Dimension. In general, the majority of students mastered the basic knowledge and concepts learnt in Key Stage 1. The majority of students could answer problems related to familiar contexts in daily life. However, some students were not able to find the area or perimeter of 2-D shapes. Further comments on their performance are provided below with examples from different sub-papers quoted in brackets.

Measurement of time, length, weight and capacity

- The majority of students could write the date or the day of a week correctly (e.g. Q23/M2).
- Most students were able to read the time from a clock (e.g. Q22(a)/M1), apply the

'24-hour time' (e.g. Q22(b)/M1) and measure the time interval between two events in 'minutes' (e.g. Q22(c)/M1).

- Most students could record the length of objects with an appropriate unit (e.g. Q20(a)/M4).
- Some students could not record the weight of objects with an appropriate unit (e.g. Q22(a)/M2, Q20(b)/M4).

Q22(a)/M2

一部平板電腦的重量約是 0.5 克 。

- The majority of students were able to measure and compare the capacity of containers in 'litre'(L) or 'millilitre' (mL) (e.g. Q23/M1).
- Some students could not use an appropriate unit to record the capacity of a container. For instance, they confused the units of weight and capacity in Q22(b)/M2.

Q22(b)/M2

一個膠桶的容量約是 5 kg 。

一個膠桶的容量約是 5 g 。

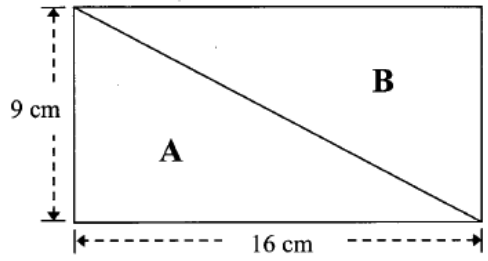
Finding perimeters

- Many students confused the area with perimeter when comparing the perimeters of 2-D shapes directly (e.g. Q21/M4).
- The majority of students could calculate the perimeters of a square and a rectangle but a few students could not find the perimeter of an irregular shape (e.g. Q24/M2).
- Some students could not recognize the relationship between the circumference and the diameter of a circle (e.g. Q25/M1).

Finding areas

- A considerable number of students could not estimate the area of an irregular 2-D shape with an effective counting method (e.g. Q26/M2).
- The majority of students were able to find the areas of parallelograms and trapeziums (e.g. Q24/M1).
- Some students were not able to find the area of a right-angled triangle correctly (e.g. Q24(b)/M3).

Q24(b)/M3



B 的面積是 144 cm^2。

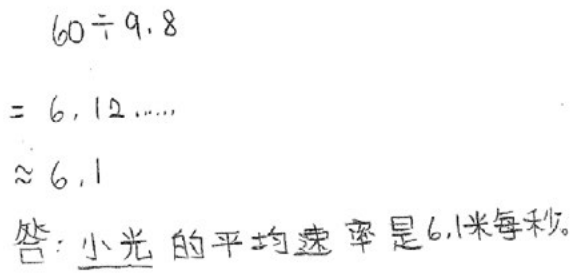
Finding volumes

- Most students could find out the volume of 3-D solids and give the answer in a correct unit (e.g. Q23/M3).
- Many students could calculate the volume of cuboids. However, some students confused the units of area (cm^2) with the units of volume (cm^3) (e.g. Q22/M3).
- The majority of students were able to find the capacity of a cubic container (e.g. Q26/M1).
- The majority of students were capable of finding the volume of irregular solids by the displacement of water (e.g. Q25/M3).

Speed

- Most students could express the speed of a ferry in 'km/h' (e.g. Q27/M1).
- The majority of students could apply the speed formula and give the answer with a correct unit of speed (e.g. Q24/M4).

Q24/M4



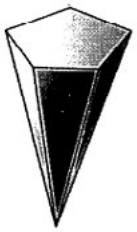
P.6 Shape & Space Dimension

Students performed well in the Shape & Space Dimension. They were able to recognize 2-D shapes, 3-D shapes and the eight compass points. There was room for improvement in the recognition of direction with reference to specific location. Further comments on their performance are provided below with examples from different sub-papers quoted in brackets.

3-D and 2-D Shapes

- Most students were able to recognize pyramids and cylinders (e.g. Q29/M1, Q28/M3). However, some students could not find the correct number of vertices of a pyramid (e.g. Q29/M1).

Q29/M1

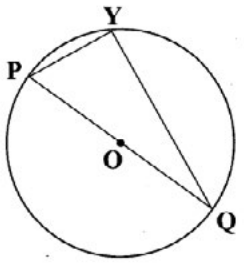


上圖是一個* (角錐) / 角柱 （*圈出答案），

它有 5 個頂。

- Most students could recognize the properties of triangles (e.g. Q24(a)/M3) but some of them confused isosceles triangle with right-angled triangles (e.g. Q28(a)/M1).

Q28(a)/M1



老師畫了一個

* 直角 / (等腰) / 等邊 三角形。

(*圈出答案)

- Some students confused the diameter with the radius of a circle (e.g. Q28(b)/M1).
- A small proportion of students were not able to recognize the characteristics of 2-D shapes (e.g. Q26/M3, Q27/M3). For instance, some students confused the property of equilateral triangles or rectangles with that of rhombuses (e.g. Q29/M2).

Q29/M2

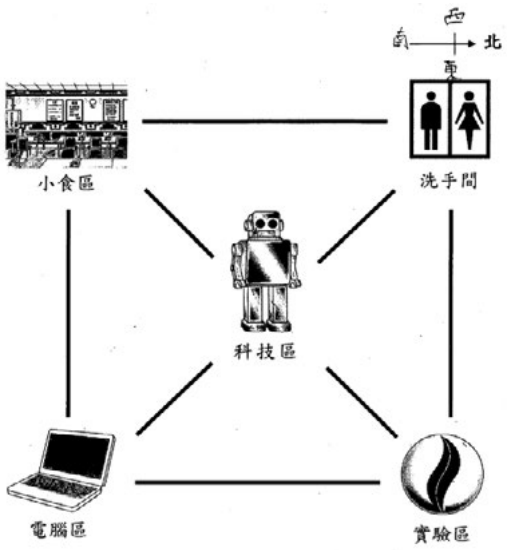
以下哪種平面圖形有 4 條邊相等？	Which of the following 2-D shapes has 4 equal sides?
○ A. 梯形 ○ B. 菱形 ○ C. 長方形 ● D. 等邊三角形	○ A. A trapezium ○ B. A rhombus ● C. A rectangle ○ D. An equilateral triangle

The eight compass points

- The majority of students were able to recognize the eight compass points (e.g. Q31/M1, Q31(b)/M2). However, some students wrote the incorrect Chinese characters for the direction 'south' (e.g. Q31(a)/M1).

Q31(a)/M1
農場在人工湖的 南 方。

- When the north direction was not pointing upward on the map, some students could not ascertain the correct direction relative to the reference point (e.g. Q31(b)/M2).

Q31(b)/M2
 小強從科技區向 西北 方走到小食區後， 轉向 東 方走，便到達電腦區。

P.6 Data Handling Dimension

Students performed well in the Data Handling Dimension. Most students were capable of drawing accurate pictograms and bar charts as well as reading the data presented in statistical graphs. They were able to calculate the average of a group of data and solve simple problems of averages. Further comments on their performance are provided with examples from different sub-papers quoted in brackets.

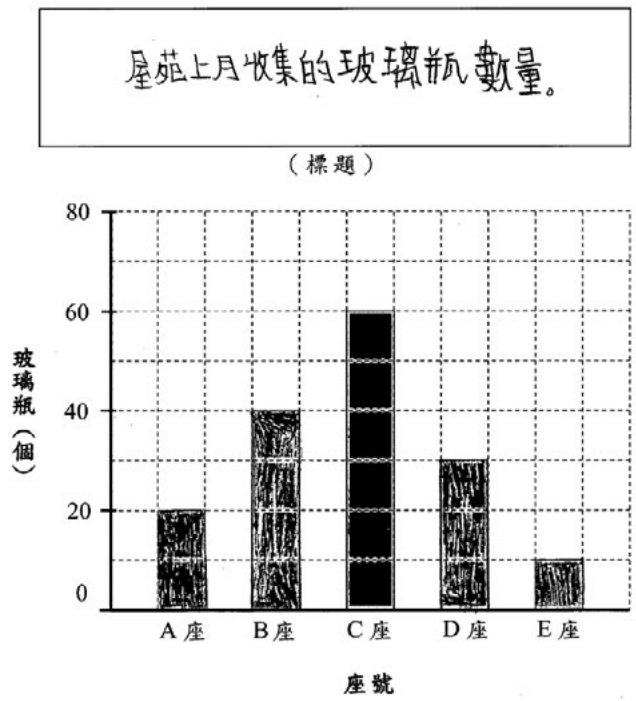
Reading and interpreting pictograms and bar charts

- Most students were able to extract the data from a pictogram including one-to-ten representation or greater frequency counts (e.g. Q34/M2, Q34/M4).
- The majority of students were able to read data from a bar chart (e.g. Q35/M1, Q36(a)/M3). However, some students could not use the information provided in a bar chart to answer questions involving fractions (e.g. Q36(b)/M3).

Constructing pictograms and bar charts

- Most students could construct pictograms correctly but a few of them missed out the keyword 'number' in the title (e.g. Q34/M1).
- Most students were able to construct bar charts and add the titles correctly (e.g. Q35/M2).

Q35/M2



Concept of averages and its applications

- The majority of students were able to calculate the average of a group of data (e.g. Q36/M2).
- A small proportion of students could not find the quarterly average amount in solving application problems (e.g. Q36/M1).

Q36/M1

月份	儲蓄（元）
一月	80
二月	55
三月	45

小碧在第一季的平均每月儲蓄是 90 元。

P.6 Algebra Dimension

The performance of P.6 students was good in the Algebra Dimension. They were able to use symbols to represent numbers, solve equations up to two steps and use equations to solve simple application problems. More detailed comments on their performance are provided below with examples from different sub-papers quoted in brackets.

Using symbols to represent numbers

- The majority of students could use an algebraic expression to represent a certain quantity (e.g. Q30/M1).

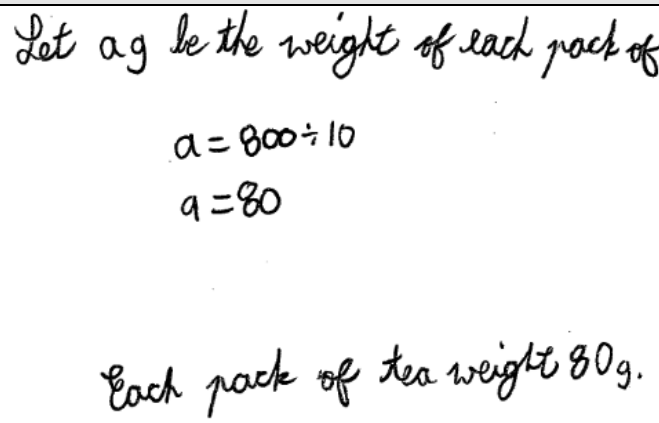
Solving simple equations

- The majority of students understood the concept of an equation (e.g. Q32/M2, Q31/M4).
- Students performed well in solving equations of up to two steps (e.g. Q32/M1, Q32/M4). However, some students were careless in calculating the answer (e.g. Q32/M3).

Q32/M3

$9x - 2 = 6$ $x = 1\frac{1}{8}$	$9x - 2 = 6$ $x = 72$

- The majority of students were able to solve application problems by setting up an equation and showing the working steps (e.g. Q33/M2). However, some students missed the required data and did not write down a correct equation (e.g. Q33/M1).

Q33/M1


General Comments on Primary 6 Student Performances

The overall performance of P.6 students was good. The majority of students did well in the Shape & Space, Data Handling and Algebra dimensions. Their performance was satisfactory in the Number and Measures dimensions.

In general, students mastered the basic concepts and computational skills stipulated in the document *Basic Competency at the end of KS2 for the Mathematics Curriculum (Trial Version)*. However, some students need to strengthen their understanding of some basic concepts such as the common factors and common multiples of two numbers, perimeter and area of 2-D shapes. They have to improve the calculation of fractions and percentages, reading a calendar, measure the length of object using 'millimetre' (mm) and using symbols to represent numbers.

Students were able to solve money problems by writing a mathematical expression but some calculated the amount incorrectly.

Q19/M1

10+14.5×3

=10+43.5

=54(元)

陳太共須付款54元。

Some students misunderstood the contexts of problems. For example, in Q19/M1, they miscalculated the amount of postage for the parcels.

Q19/M1

Fees of Speed Delivery

Weight of a parcel	Fee
5 kg or less	$10.00 each
More than 5 kg	$14.50 each

Mrs Chan mails 4 parcels by speed delivery. One parcel weighs 1 kg and each of the other three weighs 6 kg.
How much should she pay altogether?
(Show your working)

10×1+14.5×6×3

=10+87×3

=10+261

=271

∴陳太太共須付款271元。

1×10+6×14.5

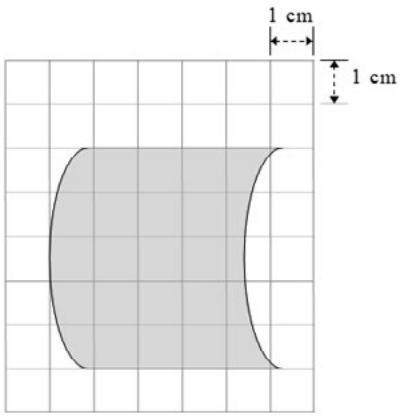
=10+87

=97(元)

陳太共須付款97元。

Some students confused the concepts of the perimeter of a 2-D shape with its area.

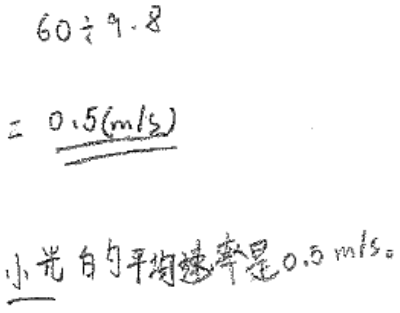
Q26/M2



陰影部分的面積約是 18 cm^2。
（以整數作答）

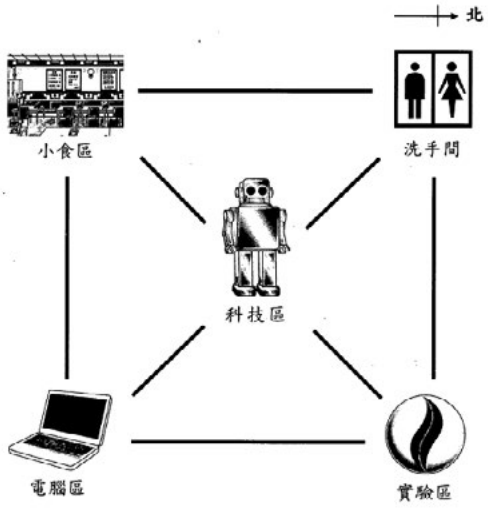
Students in general were able to apply the speed formula and give the answer in a correct unit. However, some of the students calculate the speed incorrectly.

Q24/M4



When the north direction is not pointing upward on the map, a small proportion of students misjudged the direction or could not write the correct direction.

Q31(a)/M2

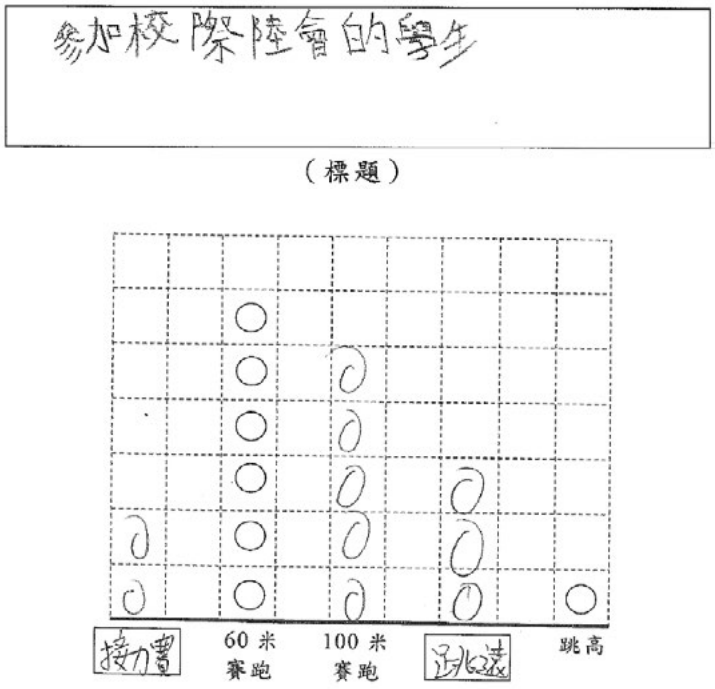


實驗區在電腦區的 東北 方。

實驗區在電腦區的 西北 方。

The majority of students were able to draw pictograms but some of them wrote down a title with an incomplete meaning.

Q35/M2



Some students were able to write down an equation in solving application problems but could not solve the equation to generate a correct answer.

Q33/M2	
每個機械人的售價是y元 $1410-3y=750$ $\frac{1410-3y}{3}=\frac{750}{3}$ $y=250$	設每個機械人的售價是R元 $3R+750=1410$ $3R=1410-750$ $R=660$

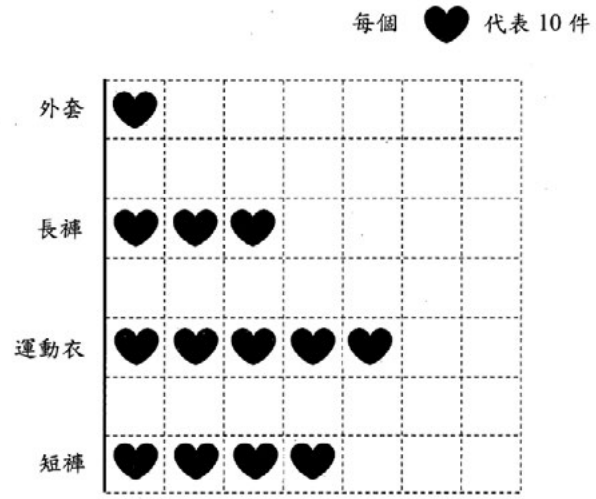
Good Performance of Primary 6 Students in 2019

Students with good performance demonstrated mastery of the basic concepts and calculations taught in Key Stages 1 and 2 including the common multiples and common factors of two numbers, the least common multiple and the highest common factor. They were capable of solving problems involving fractions including the use of brackets.

Q16/M4	
公園裏有楓樹： $80\times(1-\frac{5}{8})$ $=80\times\frac{3}{8}$ $=30$(株)	$80\times(1-\frac{5}{8})$ $=80\times\frac{3}{8}$ $=30$ ∴ There are 30 maple trees in the park.

Students with good performance were able to find the perimeter and the area of 2-D shapes, calculate the speed and the capacity of containers. They were capable of identifying 2-D shapes and 3-D shapes as well as recognizing the eight compass points.

Students with good performance were able to read the data from a pictogram and make relevant inferences.

Q34/M3
 (a) 上月回收的長褲和短褲共 70 條。 (b) 上月回收的外套數量是運動衣的 20 %。

Students with good performance were able to solve application problems by an equation. They could define symbols and show the correct steps in solving the equation.

Q33/M1	Q33/M2
設一包茶葉重 y 克。 $10y + 100 = 800$ $10y + 100 - 100 = 800 - 100$ $\frac{10y}{10} = \frac{700}{10}$ $y = 70$ 一包茶葉重 70 克。	設每個機械人的售價是 H 元。 $3H + 750 = 1410$ $3H + 750 - 750 = 1410 - 750$ $3H = 660$ $3H \div 3 = 660 \div 3$ $H = 220$ 每個機械人的售價是 220 元。

Overview of Primary 6 Student Performances in Mathematics in 2015-2019

The percentages of P.6 students achieving Basic Competency in 2015, 2017 and 2019 are provided below.

Table 8.5 Percentages of P.6 Students Achieving Mathematics Basic Competency in 2015-2019^

Year	% of Students Achieving Mathematics Basic Competency
2015	84.0
2017	84.0
2019	84.2

^ As participation in the 2016 and 2018 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.

A comparison of the strengths and weaknesses of P.6 students in 2015, 2017 and 2019 provides useful information for teachers to help students improve their learning. The following tables provide an overview of student performances in each of the five dimensions for these years.

Table 8.6 Overview of P.6 Student Performances in Mathematics in 2015-2019

Year / Number	2015	2017	2019	Remarks
Strengths	• Students grasped the basic concepts including the place values in whole numbers and decimals, common factors and common multiples of two numbers. • Students understood the highest common factor and the least common multiple. • Students were capable of carrying out the arithmetic operations on whole numbers, fractions and decimals including small brackets. • The majority of students could choose suitable methods of estimation. • Students could solve application problems by clear presentation of steps and explanations.	• 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 presented their solutions and working steps clearly in solving application problems. • Students were capable of choosing appropriate methods of estimation.	• 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.	• There is room for improvement in the basic skills of calculation involving fractions and percentages. • Some students need to improve the skills in solving problems by showing the working.
Weaknesses	• Some students confused factors with multiples. • Students needed to improve in calculations of fractions. • Some students could not manipulate mixed operations involving multiplication and division. • Students were weak in solving application problems, especially in contexts involving fractions.	• Students easily confused the tens place and tenths place in decimals, the common factors and common multiples of two numbers, etc. • Some students neglected the rule of 'doing division before addition' in problems involving mixed operations. • There was room for improvement in answering application problems involving fractions or percentages.	• 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.	

Year / Measures	2015	2017	2019	Remarks
Strengths	• Students chose the appropriate units of measurement for recording length, distance, weight and capacity. • Students were able to compare the weight of objects with improvised units. • Students could measure and compare the capacity of containers. • Students could find the perimeter and area of 2-D shapes and the volume of solids. • Students could apply the formula of speed.	• 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 apply the formula of speed.	• 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 recognize the relationship between the volume and the capacity. • Students were able to apply the formula of speed.	• Some students confused the units of length and weight.
Weaknesses	• There was room for improvement in finding the area of irregular 2-D shapes. • Students were relatively weak in understanding the relationship between the volume and the capacity.	• There was room for improvement in finding the area of irregular 2-D shapes. • Some students confused the concepts of capacity and the volume.	• 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.	

Year / Shape &Space	2015	2017	2019	Remarks
Strengths	• Students were good at identifying 2-D shapes and 3-D shapes. • Students' performance was stable in recognizing the simple characteristics of triangles. • Students were capable of recognizing the eight compass points.	• Students' performance was stable in identifying 2-D shapes and 3-D shapes. • Students were able to recognize the characteristics of different 2-D shapes. • Students were capable of recognizing the eight compass points. • The performance of students improved when the 'north' direction on a map was not pointing upward.	• Students' performance was stable in identifying 2-D shapes and 3-D shapes. • Students were able to recognize the characteristics of different 2-D shapes. • Students were capable of recognizing the eight compass points. • The performance of students improved when the 'north' direction on a map was not pointing upward.	• Different examples of familiar 3-D objects can be shown. • 2-D shapes shown in different orientations can be demonstrated.
Weaknesses	• Some students had difficulty in judging the direction relative to a reference point. • There was room for improvement in the sense of direction when the 'north' direction on a map was not pointing upward.	• A small number of students were not capable of classifying 2-D shapes. • Some students had difficulty in finding the reference point from given directions.	• Some students were not capable of classifying 2-D shapes. • Some students could not judge the direction relative to a reference point.	

Year / Data Handling	2015	2017	2019	Remarks
Strengths	• Students were capable of reading data presented in statistical graphs. • 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 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 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.	• Teachers can show real-life examples of pictograms and bar charts in the classroom, including the use and presentation of titles.
Weaknesses	• A small number of students added inappropriate titles to statistical graphs. • Some students confused pictograms with bar charts or mistakenly added a 'frequency axis' to a pictogram.	• Some students added inappropriate titles to statistical graphs. • A small number of students drew bars of incorrect height when constructing bar charts.	• Some students added inappropriate titles to statistical graphs.	

Year / Algebra	2015	2017	2019	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. • Students' performance improved in solving application problems by using simple equations.	• 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 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.	• Some students did not use all the given data in solving application problems by using equations.
Weaknesses	• A few students placed the coefficient after the symbol, for instance, writing $p \times 5$ as $p5$.	• In solving equations, some students made careless mistakes or did not write down any steps.	• Some students misunderstood the meaning of the question and could not set up a correct equation.	