Results of Primary 6 Mathematics in Territory-wide System Assessment 2017

The territory-wide percentage of P.6 students achieving Mathematics Basic Competency in TSA 2017 is 84.0% which is similar to that of the performance levels in 2013 and 2015.

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 their ability to present the solutions to problems, including writing out the necessary statements, mathematical expressions, equations and explanations.

The Assessment consisted of 89 test items (130 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.

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 (24)	18 (22)	17 (21)	47 (59)
Measures	6 (11)	7 (13)	7 (11)	7 (12)	17 (29)
Shape and Space	3 (6)	3 (6)	4 (7)	5 (9)	8 (14)
Data Handling	3 (5)	3 (6)	3 (7)	3 (5)	8 (15)
Algebra	3 (5)	2 (4)	4 (6)	4 (6)	9 (13)
Total	36 (52)	36 (53)	36 (53)	36 (53)	89 (130)

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

Performance of Primary 6 Students Achieving Basic Competence in Territory-wide System Assessment 2017

P.6 Number Dimension

The performance of students was good in the Number Dimension. The majority of students understood the basic concepts including factors and multiples, conversion between fractions, decimals and percentages, arithmetic operations and methods of estimation. However, a small number of students confused the common factors with the common multiples of two numbers. Some students were 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 understood the concept of place values (e.g. Q1/M1, Q1/M3).
- Most students were able to arrange numbers in descending order (e.g. Q1/M4).

Multiples and factors

- While the majority of students understood the concept of factors (e.g. Q2/M3), some students confused the factors with the multiples of a number and chose the options A or B in Q2/M1.
- P.6 students were able to use the listing method to find all the factors of 85 (e.g. Q3/M1).

However, some students mistook 15 for a factor of 85 or missed the factor 17 (see the examples of students' work below).

Q3/M1	
答案：1, 15, 85	答案：1, 5, 85

- The majority of students were capable of finding the common factors (e.g. Q2/M4) and common multiples of two numbers (e.g. Q6/M1). However, a small number of students confused the common multiples with the common factors of a number (e.g. Q3/M3).
- P.6 students were able to find the least common multiple (L.C.M.) (e.g. Q4/M3) and the highest common factor (H.C.F.) of two numbers (e.g. Q4/M1). However, some students confused the highest common factor with the least common multiple (see an example of students' work below).

Q4/M3
18 和 27 的最小公倍數 (L.C.M.) 是 9 。

Fractions

- The majority of students understood fractions as parts of one whole (e.g. Q7/M1) (see an example of students' work below).

Q7/M1
 答案：陰影部分佔全圖的 $\frac{5}{7}$ 。

- Students in general were able to master the relationship between a fraction and the whole (e.g. Q5/M1, Q8/M3).
- Most students were capable of converting mixed numbers into improper fractions and vice versa (e.g. Q8/M1).
- The majority of students understood the concept of equivalent fractions (e.g. Q6/M3).

- The performance of students in comparing fractions was satisfactory (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 value of decimals (e.g. Q11/M1, Q9/M3). Some students confused the tens place with the tenths place as they wrongly chose the option A in Q7/M4 (see an example of students' work below).

Q7/M4

Which of the following numbers has the digit '4' in its tenths place?

- ● A. 20 345
- ○ B. 2 034.5
- ○ C. 203.45
- ○ D. 20.345

- While the majority of students were capable of converting decimals into fractions (e.g. Q10/M1), a small number of students did not give the answer correct to two decimal places when converting a fraction into a decimal (e.g. Q7/M3).

Percentages

- The majority of students understood the basic concept of percentages (e.g. Q20/M2). However, some students confused fractions with percentages in Q17(b)/M3.
- The majority of students were capable of converting fractions into percentages (e.g. Q17(a)/M3) whereas their performance declined when converting a percentage into a fraction (see an example of students' work below).

Q17(b)/M3

把 0.5% 化為分數，並約至最簡。

答案： $\frac{1}{2}$

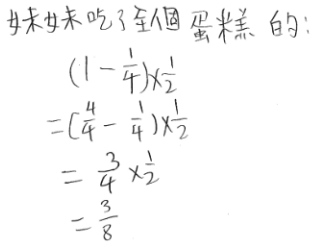
- The majority of students were capable of converting percentages into decimals and vice versa (e.g. Q19/M1).

Performing basic calculations

- P.6 students were able to handle the four operations on whole numbers (e.g. Q12/M1, Q6/M4). Some students neglected the rule of 'doing division before addition' and wrongly chose the option B in Q11/M2.
- 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, Q10/M3) but were weaker in the division of decimals (e.g. Q16/M1, Q10/M4).

Solving application problems

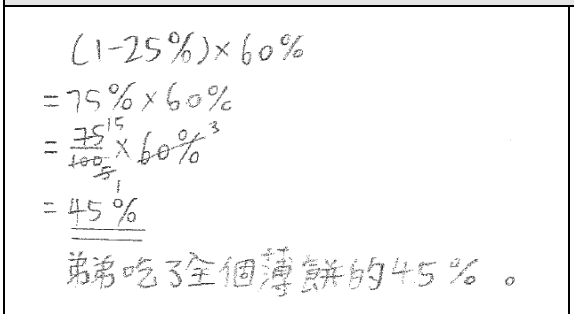
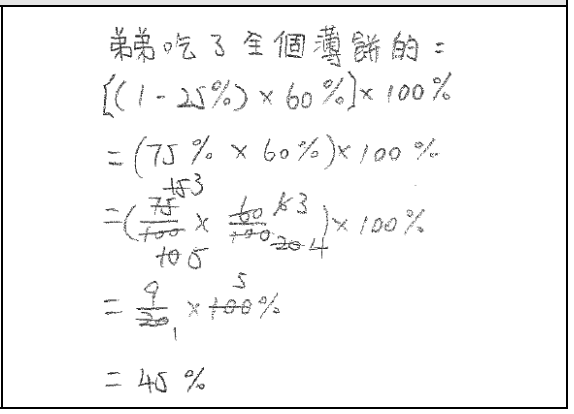
- P.6 students were able to solve application problems involving whole numbers and fractions (e.g. Q17/M1, Q17/M2, Q18/M3) (see an example of students' work on Q17/M1 below).

Q17/M1


- The majority of students were capable of solving application problems involving decimals (e.g. Q13/M4).
- Students performed well in solving problems involving money calculations (e.g. Q18/M1, Q16/M4) (see the examples of students' work below).

Q16/M4	
共須付： $\$28.5+(\$26.5\times5)$ $=\$28.5+\$132.5$ $=\$161$	$(28.5\times1)+(26.5\times5)$ $=28.5+132.5$ $=161$ ∴共須付161元。

- Students were able to solve application problems on percentages (e.g. Q20/M1, Q21/M2) (see the examples of students' work below).

Q21/M2	
	

- The majority of students could choose an appropriate method in estimating a number or an amount of money (e.g. Q21/M1, Q14/M3).

P.6 Measures Dimension

Students performed well in the Measures Dimension. P.6 students mastered the basic concepts learnt in Key Stage 1. The majority of students could answer problems related to daily life including the dates, time, length, weight and capacity. They were able to find the area and perimeter of 2-D shapes. However, some students did not know the relationship between the capacity and the volume, or understand the relationship between the circumference and the diameter of a circle. 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 correct day of a week and date according to a given calendar or context (e.g. Q23/M2).

- The majority of students were capable of reading a clock (e.g. Q22(a)/M1) and reported time using the '24-hour time' (e.g. Q22(b)/M1). They were able to measure the duration of time in 'minutes' (e.g. Q22(c)/M1).

- Most students were capable of recording the length of objects with an appropriate unit (e.g. Q22(a)/M2, Q20(a)/M4).
- The majority of students were able to record the weight of objects with an appropriate unit (e.g. Q22(b)/M2, Q20(b)/M4).

- Most students could record the capacity of containers with an appropriate unit (e.g. Q20(c) /M4).
- The majority of students could measure and compare the capacity of containers using 'litre' (L) or 'millilitre' (mL) (e.g. Q23/M1).

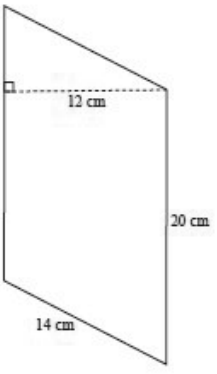
Finding perimeters

- The majority of students could compare the perimeters of 2-D shapes (e.g. Q21/M4).
- Most students could calculate the perimeter of a rectangle (e.g. Q24(a)/M2).
- Many students did not recognize the relationship between the circumference and the diameter of a circle (e.g. Q25/M1).
- The majority of students could apply the circumference formula in solving problems (e.g. Q24(b)/M2, Q18(b)/M4).

Finding areas

- Generally, students could estimate the area of an irregular 2-D shape using effective strategies (e.g. Q26/M2).
- The majority of students were capable of finding the areas of triangles and parallelograms (e.g. Q24/M1).
- Some students confused the side with the height of a parallelogram and calculated the area incorrectly (see an example of students' work on Q28/M2 below).

Q28/M2



上圖是一個平行四邊形。

它的面積是 280 cm^2。

Finding volumes

- The majority of students were able to find the volume of 3-D solids with a correct unit (e.g. Q23/M3).
- The majority of students were able to calculate the volume of a cube (e.g. Q26/M1).
- Many students did not understand the relationship between the capacity and the volume (e.g. Q24/M3).
- The majority of students were capable of finding the volume of an irregular solid by displacement of water (e.g. Q25/M3).

Speed

- Most students were able to choose the correct units of speed (e.g. Q27/M1).
- The majority of students were able to find the time using the speed formula (e.g. Q18(a)/M4) (see an example of students' work below).

Q18(a)/M4
(a) Paul cycles once round the bicycle trail in 110 seconds.

P.6 Shape & Space Dimension

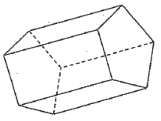
Students performed well in the Shape & Space Dimension. They could identify 2-D and 3-D shapes. They were capable of recognizing the characteristics of 2-D shapes as well as the eight compass points. Further comments on their performance are provided below with examples from different sub-papers quoted in brackets.

3-D and 2-D Shapes

- The majority of students were capable of identifying 3-D shapes. They could distinguish between pyramids and prisms as well as recognizing the number of edges (e.g. Q28/M3).

- Some students confused 2-D shapes with 3-D shapes and wrongly chose the option A in Q29/M1 (see an example of students' work below).

Q29/M1

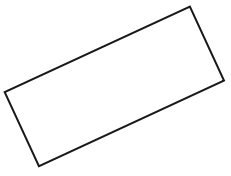


上圖的立體圖形是一個

● A. 五邊形。
○ B. 長方形。
○ C. 角錐。
○ D. 角柱。

- Most students recognized the characteristics of circles including the diameter (e.g. Q28(a)/M1).
- Some students mixed up isosceles triangles with equilateral triangles (e.g. Q28(b)/M1).
- Most students were able to identify rhombuses and trapeziums but a few confused parallelograms with trapeziums (e.g. Q26/M3).
- Most students recognized the characteristics of rectangles including the number of right angles (see an example of students' work on Q29/M2 below).

Q29/M2



上面的平面圖形是一個 * 梯形 / 菱形 / (長方形)。

(*圈出答案)

它有 4 個直角。

- Most students were able to classify 2-D shapes(e.g. Q27/M3).

The eight compass points

- The majority of students recognized the eight compass points (e.g. Q31(a)&(b)/M1). When the north direction was not pointing upward on the map, students could also locate the position of the reference point and identify the correct directions (e.g. Q31(a)/M2).

- A small number of students wrote the wrong Chinese characters for the 'south' or 'west' directions (see the examples of students' work below).

Q31(b)/M1	Q31(b)/M2
家庭用品部在玩具部的 西南 方。	小青從草地向 西 方走到涼亭後

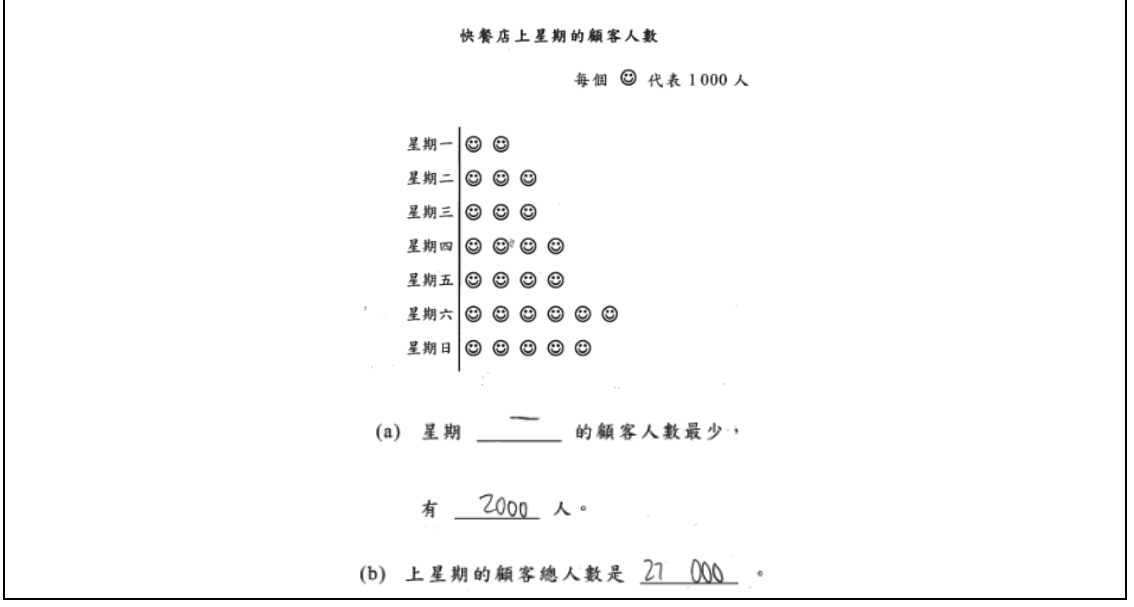
P.6 Data Handling Dimension

Students performed well in the Data Handling Dimension. The majority of students were capable of reading and drawing pictograms and bar charts. They correctly extracted the data given in statistical graphs in order to answer the questions. They were able to calculate the average of a group of data and solve problems of averages. Further comments on their performance are provided below with examples from different sub-papers quoted in brackets.

Reading and interpreting pictograms and bar charts

- Most students were able to read the data from pictograms (e.g. Q34/M2) including those with greater frequency counts (see an example of students' work on Q34/M4 below).

Q34/M4



- The majority of students were capable of extracting the data from bar charts, including those with greater frequency counts (e.g. Q35/M1, Q36/M3) except a small number of students who were not able to answer simple questions using the data.

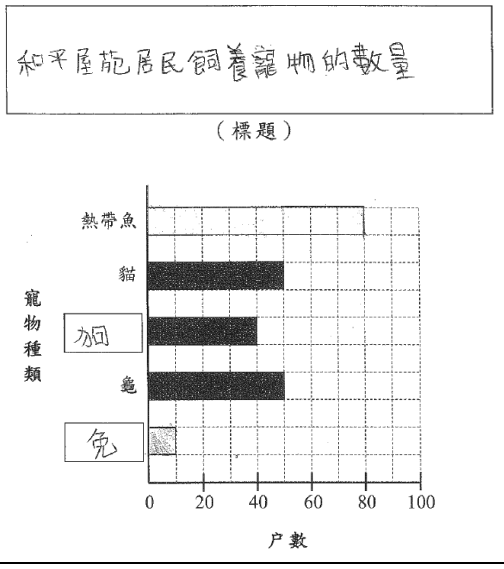
Constructing pictograms and bar charts

- Most students were able to construct pictograms correctly and add suitable titles (see an example of students' work on Q34/M1 below).

Q34/M1

- The majority of students were able to construct bar charts with correct heights of bars and added suitable types of pets (see an example of students' work on Q35/M2 below).

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).
- Moreover, they were able to find the average value using the data provided in the problem (e.g. Q36/M1).

P.6 Algebra Dimension

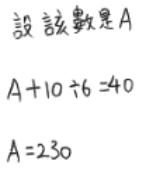
The performance of students was satisfactory in the Algebra Dimension. They were able to use symbols to represent numbers, solve equations up to two steps and use equations to solve simple application problems. More detailed comments on their performance are provided below with examples from different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

Using symbols to represent numbers

- The majority of students were able to use symbols to represent numbers in accordance with the context (e.g. Q32/M2). However, some of them confused the subtrahend with the minuend or misunderstood the meaning of the question (e.g. Q30/M1).

Solving simple equations

- The majority of students understood the concept of equations (e.g. Q31/M4) but some of them confused the arithmetic expressions with the equations (e.g. Q31/M3).
- The performance of students was good in solving equations of up to two steps (e.g. Q32/M1, Q32/M4). However, their performance declined slightly when fractions were involved in the equation (e.g. Q32/M3).
- Generally, students were able to solve application problems by the method of solving an equation corresponding to the context of a question (e.g. Q33/M1). However, some students missed the brackets in the equation or did not show any working steps (see an example of students' work on Q33/M2 below).

Q33/M2


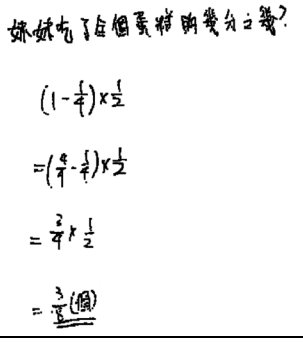
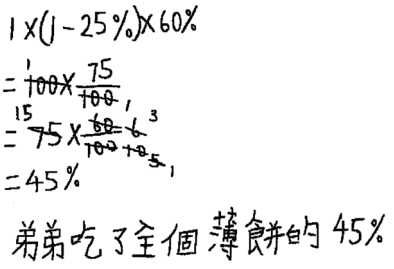
General Comments on Primary 6 Student Performances

The overall performance of P.6 students was good. The majority of students did well in the Measures, Shape & Space and Data Handling Dimensions. They performed satisfactorily in the Number and Algebra Dimensions.

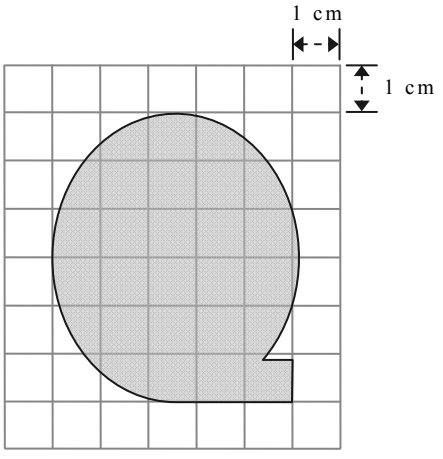
In general, students mastered the basic concepts and computational skills stipulated in the

document *Basic Competency at the end of KS2 for the Mathematics Curriculum (Trial Version)*. For instance, they understood the concepts of fractions, decimals and percentages, and performed the arithmetic operations correctly. However, some students were weak in basic concepts such as confusing the common factors and commons multiples of two numbers, the tenths and hundredths places of a decimal. They need to deepen understanding of the relationship between the capacity and the volume, the relationship between the circumference and the diameter of a circle as well as the techniques of solving equations.

Some students were weak in the presentation of solutions to problems involving fractions or percentages though they could find the correct answer (see the examples of students' work below).

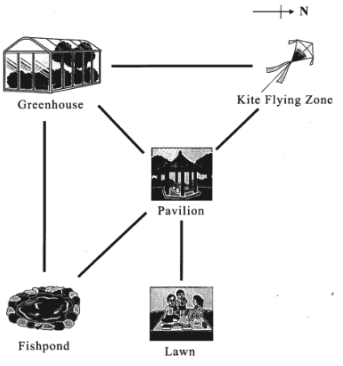
Q17/M1	Q21/M2
	

Some students could not estimate the area of an irregular 2-D shape using effective tactics (see the examples of students' work below).

Q26/M2	
	
陰影部分的面積約是 15 cm²。（以整數作答）	The area of the shaded part is about 20 cm². (Give the answer as a whole number)

When the north direction was not pointing upward on the map, a small number of students misjudged the direction or could not give the correct direction (see an example of students' work below).

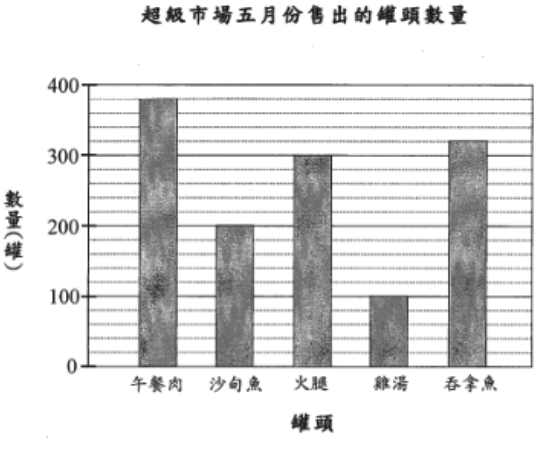
Q31(b)/M2



Starting from Lawn, Eva goes N (direction) to reach Pavilion. Then she turns ES (direction) to reach Fishpond.

Students in general could extract information from statistical graphs but some of them misunderstood the meaning of the question (see an example of students' work below).

Q35(b)/M1

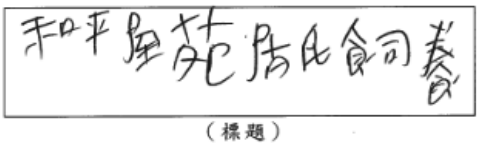


沙甸魚的售出數量是火腿的幾分之幾?

答案:沙甸魚的售出數量是火腿的 $1\frac{1}{2}$。

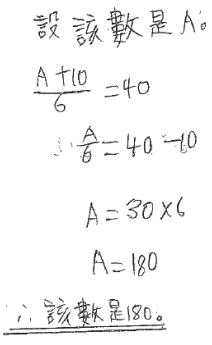
The majority of students were able to draw pictograms and bar charts except a few of them wrote incorrect or incomplete titles for the statistical graphs (see an example of students' work below).

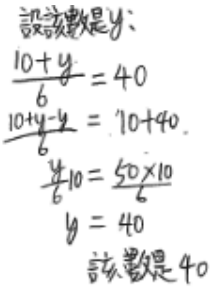
Q35/M2



Some students could write down a correct equation with a suitable description for the unknown. However, they made mistakes in the steps of solving the equation (see the examples of students' work below).

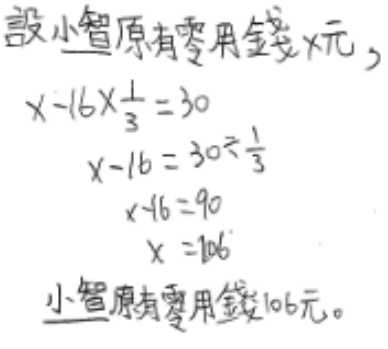
Q33/M2

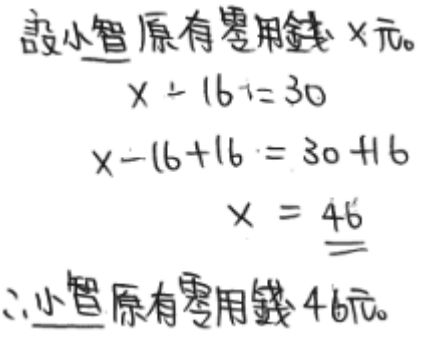




Some students missed the brackets in writing down an equation or neglected the information provided by the question (see the examples of students' work below).

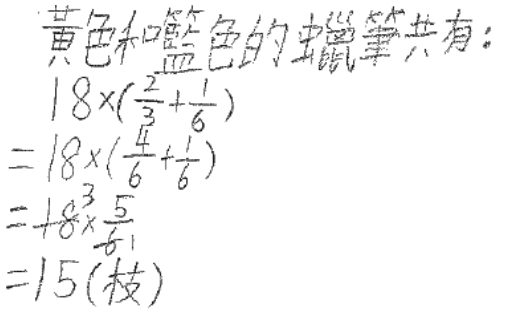
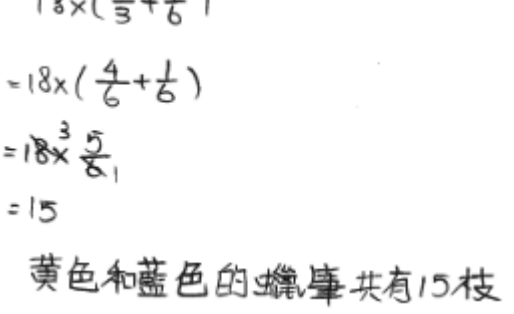
Q33/M1



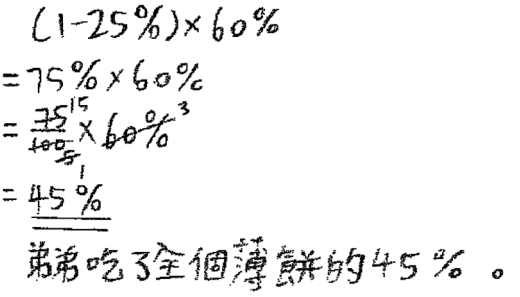
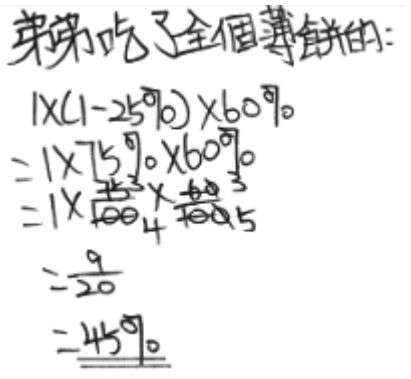


Good Performance of Primary 6 Students in Territory-wide System Assessment 2017

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 (see the examples of students' work below).

Q18/M3	
	

These students were also capable of solving application problems involving percentages (see the examples of students' work below).

Q21/M2	
	

Students with good performance were able to calculate the perimeter and the area of 2-D shapes, the volume of solids and the capacity of containers. They were able to identify 3-D shapes and recognize the characteristics of 2-D shapes as well as the eight compass points. They were able to use symbols to represent numbers as well as tackle application

problems by solving an equation and showing the correct steps (see the examples of students' work below).

Q33/M1	Q33/M2
Let $x be the amount of Billy's original amount of pocket money. $(x-16)\times\frac{1}{3}=30$ $x-16=30\div\frac{1}{3}$ $x=90+16$ $x=106$ Billy's original amount of pocket money was $106.	設該數是P。 $(P+10)\div6=40$ $(P+10)\div6\times6=40\times6$ $P+10=240$ $P+10-10=240-10$ $P=230$ ∴該數是230。

Overview of Student Performances in Mathematics at Primary 6 Territory-wide System Assessment 2013-2017

The percentages of students achieving Basic Competency in 2013, 2015 and 2017 are provided below.

Table 8.5 Percentages of P.6 Students Achieving Mathematics Basic Competency in 2013-2017^

Year	% of Students Achieving Mathematics Basic Competency
2013	84.2
2015	84.0
2017	84.0

^ The 2014 and 2016 P.6 TSA were suspended. As participation in the 2014 and 2016 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 TSA 2013, 2015 and 2017 provides useful information for teachers to help students improve the effectiveness of their learning. The percentage of students achieving mathematics basic competency in 2017 is similar to that of 2013 and 2015. The following tables provide a comparison of the student performances for these years in each of the five dimensions.

Table 8.6 Overview of Student Performances in Mathematics at P.6 Territory-wide System Assessment 2013-2017

Year / Number	2013	2015	2017	Remarks
Strengths	• Students were capable of performing arithmetic operations on whole numbers, fractions, decimals and percentages. • Students could understand the concept of a fraction as parts of one whole and compare fractions. • Students were capable of choosing the appropriate mathematical expression in estimation.	• 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.	• There is room for improvement in the basic skills of calculation involving fractions and percentages. • Some students need to improve the presentation of their working in solving application problems. • More daily life examples should be used to explain the methods of estimation.
Weaknesses	• Students needed improvement in finding the common multiples and L.C.M. of two numbers. • Some students forgot the rule of "performing multiplication/division before addition/subtraction" when carrying out mixed operations. • Some students had difficulty in solving application problems involving fractions or unfamiliar contexts.	• 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.	

Year / Measures	2013	2015	2017	Remarks
Strengths	• Students could master the basic competencies learnt in Key Stage 1 (e.g. measuring length with a ruler, choosing the appropriate units of measurement for recording length, distance, weight and capacity; etc.). • Students could measure and compare the capacity of containers. • Students could calculate the volume of cubes and cuboids. • Students improved a little bit on solving application problems of speed.	• 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.	• Teachers can demonstrate the relationship between the circumference and the diameter of a circle with practical examples.
Weaknesses	• There was room for improvement in finding the perimeter and area of 2-D shapes.	• 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.	

Year / Shape &Space	2013	2015	2017	Remarks
Strengths	• Students were capable of identifying 3-D shapes including the numbers of vertices, edges and faces. • Students were capable of recognizing the characteristics of different 2-D shapes • Students performed well in identifying parallel lines and perpendicular lines. • Students were able to handle the eight compass points.	• 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.	Teachers can demonstrate different examples to show the characteristics of 3-D shapes and 2-D shapes such as : • familiar 3-D objects; • 2-D shapes shown in different orientations.
Weaknesses	• Some students confused prisms with pyramids. • Some students mis-classified 2-D shapes with curved sides as polygons. • Some students could not find the correct direction relative to a reference point. • A small number of students neglected the implication when the 'north' direction was not pointing upward on the map.	• 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.	

Year / Data Handling	2013	2015	2017	Remarks
Strengths	• Students were capable of reading data presented in pictograms or bar charts. They could extract relevant information from given statistical graphs to make inferences. • Students were capable of drawing pictograms or bar charts. • Students were able to solve daily problems involving averages.	• 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.	• Teachers can show more daily examples of pictograms and bar charts in the classroom.
Weaknesses	• Some students unnecessarily added a 'frequency axis' to the pictogram.	• 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.	

Year / Algebra	2013	2015	2017	Remarks
Strengths	• Students were able to use symbols to represent numbers and understood the concept of equations. • Students were able to solve equations up to two steps.	• 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.	• There is room for improvement in the techniques of solving equations. • Students have to pay more attention to the presentation in solving application problems by equations.
Weaknesses	• Students had room for improvement in solving application problems by equations.	• 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.	