Results of Primary 3 Mathematics in Basic Competency Assessment Research Study 2017

The percentage of Primary 3 students achieving Mathematics Basic Competency in 2017 is 88.2%.

Primary 3 Assessment Design

The assessment tasks for P.3 were based on the Basic Competency at the end of KS1 for the Mathematics Curriculum (Trial Version) and the Mathematics Education Key Learning Area – Mathematics Curriculum Guide (P1-P6) (2000). The Assessment covered the four dimensions of the Mathematics Primary 1 to 3 curriculum, i.e. Number, Measures, Shape & Space and Data Handling, and tested the concepts, knowledge, skills and applications relevant to these dimensions.

The Assessment included items in a number of formats based on the context of the question, including fill in the blanks, answers only and answers involving working steps as well as multiple choice. Some of the test 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 necessary statements, mathematical expressions and explanations.

The Assessment consisted of 96 test items (134 score points) covering all the 49 Basic Competency Descriptors of the four dimensions. These items were grouped into four sub-papers, each 40 minutes in duration and covered all four dimensions. 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 8.1. These numbers include overlapping items.

Table 8.1 Number of Items and Score Points for P.3

Subject	No. of Items (Score Points)				
	Paper 1	Paper 2	Paper 3	Paper 4	Total*
Mathematics Written Paper					
Number	16(19)	14(19)	16(19)	15(19)	41(52)
Measures	8(13)	10(14)	8(12)	9(12)	28(39)
Shape and Space	7(10)	7(9)	7(10)	7(10)	21(29)
Data Handling	2(4)	2(4)	2(5)	2(5)	6(14)
Total	33(46)	33(46)	33(46)	33(46)	96(134)

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

Performance of Primary 3 Students Achieving Basic Competence in 2017

The assessment design for the Mathematics Assessment of the 2017 Research Study was based on the recommendations of the Committee. The principles for modifications of paper and item design are meeting the learning needs of students, alleviating the learning burden on students, aligning with the spirit of curriculum and reflecting the standards of basic competencies. Moderation Committee adopted the recommendations of the Committee. Comparing with 2015, the number of items in the Assessment was reduced, with a cut of around 20%. Only one basic competency was assessed in each item. Items requiring solving linking problems were minimized. Items were related to students' life experiences and tied in with their mental development.

Primary 3 Number Dimension

Students' performance in the Number Dimension was good. P.3 students were able to recognize the place values of digits in a whole number. They performed steadily in addition, subtraction, multiplication and division of whole numbers as well as in their mixed operations. In general, students were able to solve application problems and showed working steps in their solutions. They understood the basic concepts of fractions and were able to compare fractions. Further comments on students' performance are provided below with examples from different sub-papers quoted in brackets.

Understanding basic concepts of whole numbers and fractions

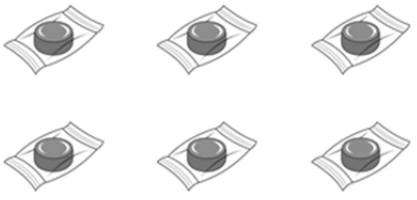
- Students performed very well in recognizing the place values of digits in a whole number (e.g. Q1/M1, Q1/M3) and the values represented by the digits (e.g. Q2/M2).
- The majority of students were able to order or write 5-digit numbers (e.g. Q2/M1, Q3/M3). However, in Q3/M3, a few students failed to give the correct answer according to specified criteria (see the examples of students' work as follows).

Q3/M3	
寫出一個比 59 873 大，又比 60 124 小的雙數。	答案：40598 Answer: 59 971

- The majority of students were able to express a whole number in Arabic numerals (e.g. Q3/M1). However, some students wrongly expressed 'twenty thousand and sixty-eight' as '2 068' or '20 618'.

Q3/M1	
用阿拉伯數字寫出「二萬零六十八」。	Answer: 20 68 答案：20618

- The majority of students were capable of using a fraction to represent part of a whole (e.g. Q15/M1, Q12/M2). However, a small number of students misunderstood the question in Q16/M1 and failed to give the correct answer (see an example of students' work as follows).

Q16/M1	
俊文有 6 粒糖，牛奶糖佔全部的 $\frac{2}{3}$ ，其餘的是果汁糖。 	(a) 牛奶糖有 2 粒。 (b) 果汁糖佔全部的 $\frac{4}{6}$ 。

- Most students could recognize the relationship between fractions and 1 as the whole (e.g. Q14(a)/M4). However, in Q13(a)/M2, some students did not understand that the value of $\frac{3}{3}$ is equal to that of $\frac{2}{2}$ (see the examples of students' work as follows).

Q13(a)/M2	
(a) $\frac{3}{3}$ * 小於 / 等於 / (大於) $\frac{2}{2}$ 。 （*圈出答案）	(a) $\frac{3}{3}$ is *(smaller than) / equal to / larger than $\frac{2}{2}$. (*Circle the answer)

- The majority of students were able to compare fractions (e.g. Q13(b)/M2, Q14/M2, Q14(b)/M4, Q15/M4) .

Performing basic calculations with whole numbers

- Students performed well in the addition of whole numbers including carrying and repeated addition of 3-digit numbers (e.g. Q4/M1, Q4/M3, Q3/M4).

- The majority of students were able to perform the subtraction of 3-digit numbers, involving decomposition and repeated subtraction (e.g. Q5/M1, Q6/M1, Q5/M3).
- The majority of students were good at performing the multiplication of whole numbers up to 1 digit by 3 digits involving carrying (e.g. Q7/M1, Q6/M2, Q6/M3, Q6/M4).
- Students in general could perform division of 3-digit numbers with 1-digit number (e.g. Q8/M1, Q7/M3, Q7/M4). However, in Q8/M1, a very small proportion of students mistook '212…2' for the answer. In Q7/M4, a few students failed to put a '0' in the quotient and chose the incorrect option B.
- The majority of students performed well in the mixed operations of addition and subtraction including small brackets (e.g. Q8/M3) as well as in those operations involving multiplication and subtraction (e.g. Q8/M4). However, in Q9/M1, some students neglected the computational rule of doing 'multiplication before addition' and chose the incorrect option D.

Solving application problems

- Students in general were capable of solving simple application problems involving addition, subtraction, multiplication, division or mixed operations (e.g. Q10/M1, Q11/M1, Q12/M1, Q9/M2, Q9/M3, Q11/M3). They could demonstrate working steps in presenting their solution as well (e.g. 14/M1, Q10/M2, Q11/M2, Q12/M3).
- In Q9/M2 and Q11/M2, some students confused multiplication with division in solving application problems (see the examples of students' work as follows).

Q9/M2

Each pupil gets 5 pieces of drawing paper.

75 pupils get 15 pieces of drawing paper altogether.

Q11/M2

麵包店有 140 個麵包。店員把麵包每 4 個裝成一袋，共可裝成多少袋？

（列式計算）

共可裝成：

140×4

＝560(袋)

- In Q12/M3, some students mixed up the 'minuend' with the 'subtrahend' in writing the mathematical expression, though they still got the correct answer (see an example of students' work as follows).

Q12/M3
店員應找回： 9×2-100 =18-100 =82(元)

- In Q10/M2, some students missed the bracket in writing the mathematical expression, though they gave the correct step and answer (see an example of students' work as follows).

Q10/M2
三年級沒有學生： 329-107+96 =329-203 =126(人)

- Although some students were able to write the correct mathematical expressions, they made mistakes in their calculations and got the wrong answers (see the examples of students' work as follows).

Q14/M1	
共須付： 45+(8×4) =45+36 =81(元)	共須付 45+8×4 =53×4 =212(元)

- The majority of students were able to solve problems involving the addition or the multiplication of money (e.g. Q13/M1, Q13/M3).

Primary 3 Measures Dimension

The performance of P.3 students was good in the Measures Dimension. They could read price tags, identify and use Hong Kong money. The majority of students were capable of telling the dates and days of the week, telling time from a clock face or a digital clock, and recording the duration of time for different activities as well. They were able to

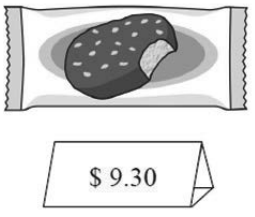
measure and compare the length and weight of objects. They also chose the appropriate tools for measuring and recording the length and weight of objects.

However, some students were not able to read the capacity of containers and there was room for improvement in money exchange. Further comments on students' performance are provided with examples from different sub-papers quoted in brackets as follows.

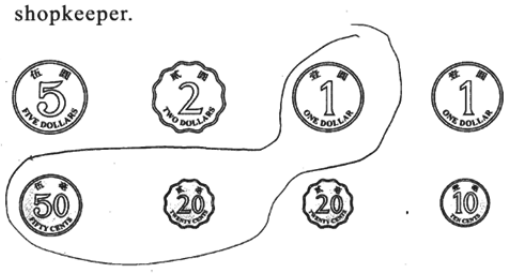
Hong Kong money

- The majority of students could identify and use Hong Kong money (e.g. Q18/M1, Q15(b)/M2). Most students could read the price tags well (e.g. Q17(a)/M1, Q15(a)/M2).
- Students performed well in exchanging money directly (e.g. Q17/M4). However, in Q17(b)/M1, some students showed weakness in giving change of money, a very small proportion of them even confused '70 cents' with '7 dollars' (see the examples of students' work as follows).

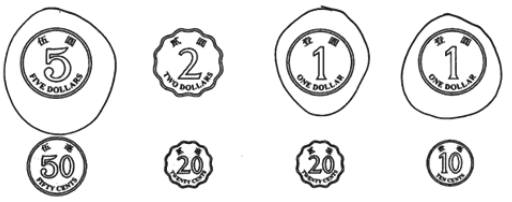
Q17(b)/M1



(b) Jimmy pays  to buy an ice-cream bar.
Circle the change returned to Jimmy by the shopkeeper.



(b) 志良付  購買一件雪糕批。圈出店員須找回的金額。



Knowledge of time

- Most students were capable of telling the dates and days of a week from a calendar (e.g. Q21/M1, Q19/M2). In Q19(a)/M2, a few students did not write down the correct date according to given conditions (see an example of students' work as follows).

Q19(a)/M2

根據下面五月份的月曆，回答下列各題。

五月						
星期日	星期一	星期二	星期三	星期四	星期五	星期六
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

(a) 五月的第二個星期日是母親節，

那天是 5 月 7 日。

- Almost all students were capable of telling time from a clock face or a digital clock (e.g. Q22(a)/M1, Q21(a)/M4). They showed a satisfactory performance in measuring the duration of time for activities (e.g. Q22(b)/M1, Q21(b)/M4) (see an example of students' work as follows).

Q22/M1

以下兩個鐘面顯示一節評估開始和完結的時間。

開始時間

完結時間

(a) 評估的開始時間是上午 10 時 15 分。

(b) 現在是上午 10 時 25 分，評估還有

5 分鐘才完結。

- Most students were able to recognize and apply '24-hour time' (e.g. Q23/M3). Only a small proportion of students failed to convert the 24-hour time to the time in the afternoon. Some students misunderstood the question and were not able to work out the duration of time (see an example of students' work as follows).

Q23/M3

以下是書店一天的營業時間。

營業時間
13:30 – 20:30

(a) 書店開始營業的時間是

* 上午 / (下午) 13 時 30 分。

(*圈出答案)

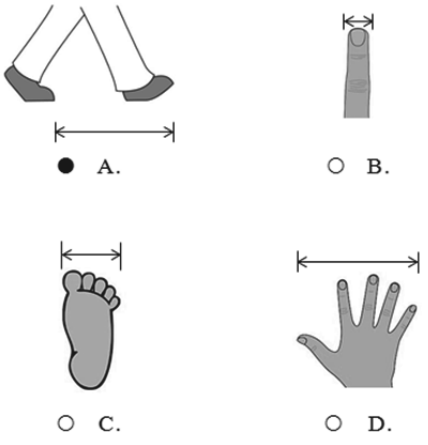
(b) 書店全日共營業 8 小時。

Length, distance, weight and capacity

- Almost all students were able to compare the distances between objects directly (e.g. Q16/M2). Most students were capable of comparing the length of objects using improvised units (e.g. Q18/M4).
- The majority of students were able to use a ruler to measure the length of object (e.g. Q19/M3). However, they were relatively weak in choosing 'ever-ready rulers' such as finger span to measure the height of objects (e.g. Q20/M1) (see an example of students' work as follows).

Q20/M1

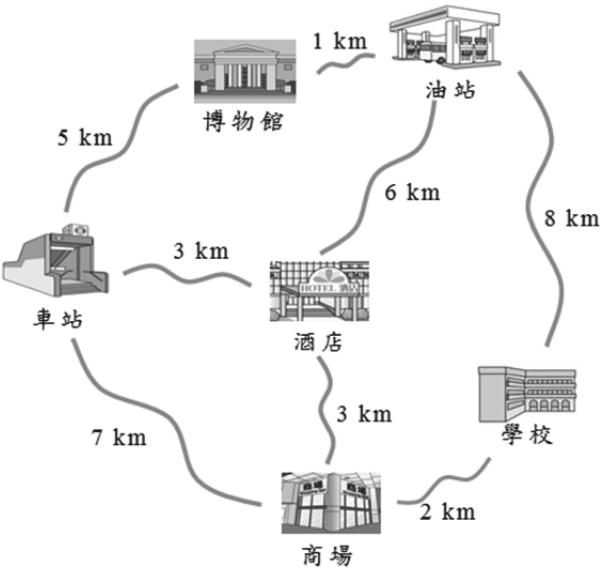
以下哪一項最適合用來量度雪櫃的高度？



- Most students could use 'kilometre' (km) to express the distance between objects (e.g. Q18(a)/M3) though few students were not able to find the shortest distance between two places (e.g. Q18(b)/M3)(see the examples of students' work as follows).

Q18(b)/M3

細閱下圖，把答案寫在橫線上。



(b) 由車站去學校，最短的路程要走 6 km。

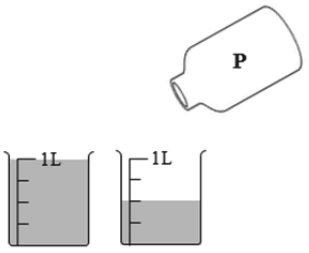
(b) The shortest route from Train Station to School is 9 km.

- Generally, students were able to compare the weight of objects directly (e.g. Q21/M2) as well as measure and compare the weight of objects using improvised units (e.g. Q22/M4).
- The majority of students were capable of measuring the weight of objects using 'kilogram' (kg) or 'gram' (g) (e.g. Q23(a)/M1, Q22/M2). They showed progress when they compared the weight of objects (e.g. Q23(b)/M1).
- Student performed well in comparing the capacities of containers directly (e.g. Q24/M1) as well as measuring and comparing the capacities of containers with improvised units (e.g. Q23/M4).
- Most students were able to use 'millilitre'(mL) to measure the capacity of container (e.g. Q24/M4). Nevertheless, in Q23/M2, some students were weaker in measuring

the capacity of container using 'litre'(L) or 'millilitre'(mL). They could not intuitively read that half of 1L equals to 500 mL (see the examples of students' work as follows).

Q23/M2

把容器 **P** 注滿水，然後把全部水倒進兩個空的量杯裏。



容器 **P** 的容量是 1600 mL。

容器 **P** 的容量是 1400 mL。

The capacity of container **P** is 500 mL.

- The majority of students chose the appropriate tools to measure the length and weight of objects, and the capacity of containers (e.g. Q24/M2, Q21/M3, Q20/M3). Students in general were able to record the length and weight of objects with appropriate units (e.g. Q19/M1, Q22/M3, Q19/M4), but a small number of students mixed up and misused the measuring units (see the examples of students' work as follows).

Q19/M1

(a) 一枝牙刷  長約 16 m 。

(b) 一個蘋果  重約 200 kg 。

(b) An apple  weighs about 200 mm .

Q22/M3

(a) 一袋米的重量約是 2 克 。

(a) The weight of a bag of rice is about 2 cm .

(b) 一個籃球場的長度約是 28 km 。

Q19/M4

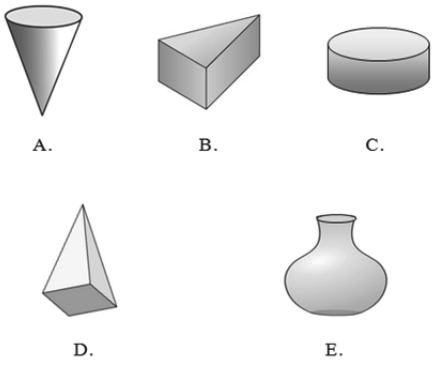
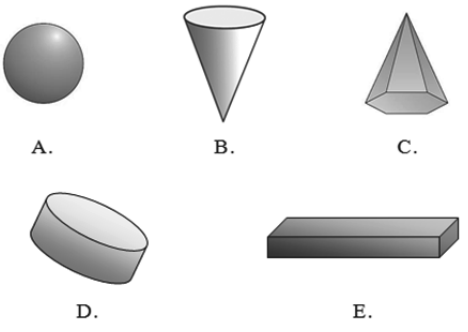
一包紙巾的厚度約是 20 cm 。

Primary 3 Shape & Space Dimension

P.3 students performed well in the Shape & Space Dimension. The majority of students were able to identify 3-D shapes, 2-D shapes, straight lines, curves, parallel lines, perpendicular lines and right angles. They were able to solve problems involving the four main directions. However, some students were comparatively weak in some basic concepts such as mixing up prisms and pyramids; cylinders and cones. Further comments on students' performance are provided below with examples from different sub-papers quoted in brackets.

3-D Shapes

- Students were able to identify 3-D shapes (e.g. Q25/M1, Q25/M2). A small number of students confused a pyramid with a prism and chose the incorrect option B in Q25/M2.
- Students in general could classify 3-D shapes (e.g. Q26/M1, Q26/M2). However, some students were not able to distinguish between prisms and pyramids; cylinders and cones (see the examples of students' work as follows).

Q26/M1	Q26/M2
根據指示，寫出所有代表答案的英文字母。  A. B. C. D. E. 列出： (a) 角柱：B、D (b) 圓錐：A, C.	Follow the instruction. Write down all the letters for the answers.  A. B. C. D. E. List: (a) Cylinder(s): D, B (b) Sphere(s): A

- The majority of students were able to compare the thickness of objects intuitively (e.g. Q27/M2)

2-D Shapes

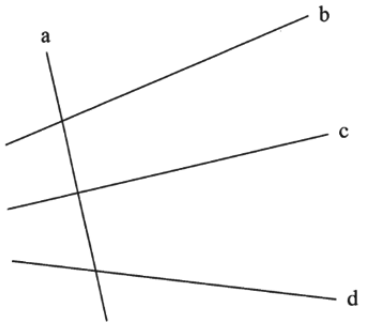
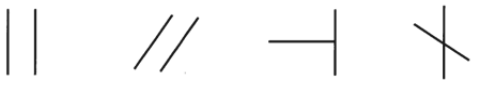
- The majority of students could identify 2-D shapes including hexagons, rectangles, parallelograms, trapeziums, rhombuses, circles and squares (e.g. Q27/M1, Q28/M2,

Q27/M3, Q28/M4). Only a very small proportion of students confused rectangles with parallelograms and were relatively weak in identifying trapeziums.

- Most students were able to recognize equilateral triangles, right-angled triangles and isosceles triangles (e.g. Q29/M1, Q29/M2, Q28/M3).
- Almost all students were able to find the relative positions of two 2-D shapes (e.g. Q29/M3).

Straight Lines and Curves

- Most students were good at identifying straight lines and curves (e.g. Q30/M3).
- The majority of students were able to identify parallel lines (e.g. Q30/M1) but some students could not recognize perpendicular lines (e.g. Q30/M2). In Q30/M4, a few students confused parallel lines with perpendicular lines.

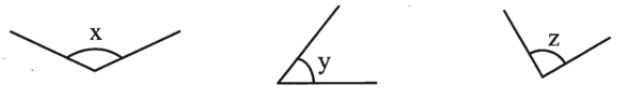
Q30/M2	Q30/M4
觀察下圖，寫出代表答案的英文字母。  直線 a 和 b 是一對垂直線。	Study the following figures. Write down the letter(s) for the answer.  List the figure(s) formed by perpendicular lines. Answer: A、B

Angles

- Most students were able to recognize a right angle (e.g. Q28/M1) and compare the size of the angles (e.g. Q31/M2).

Q28/M1
   List the figure(s) with right angle(s). Answer: D

Q31/M2



細閱上圖，把 x、y 和 z 三個角由大至小排列出來。

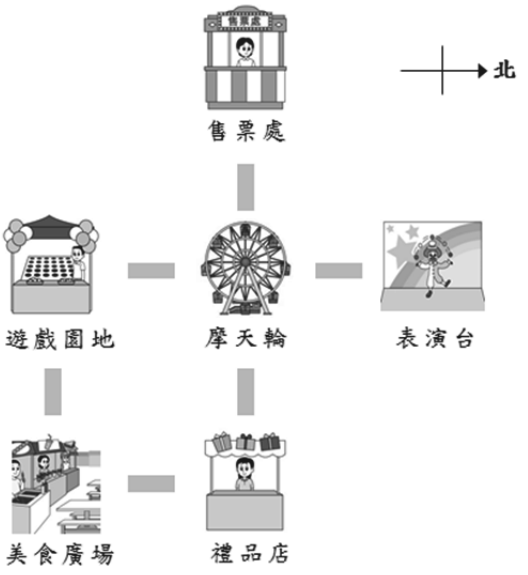
答案：X（最大），Z，Y（最小）

Directions

- Students did well in recognizing the four main directions, namely, north, east, south and west (e.g. Q31/M1, Q31(a)/M3). However, some students were not able to find the correct position relative to the given reference point (e.g. Q31(b)/M3) (see the examples of students' work as follows).

Q31(b)/M3

下面是嘉年華會的位置圖。



(b) 美食廣場在遊戲園地的 西 方。

(b) Food Court is to the South (direction) of Games Booth.

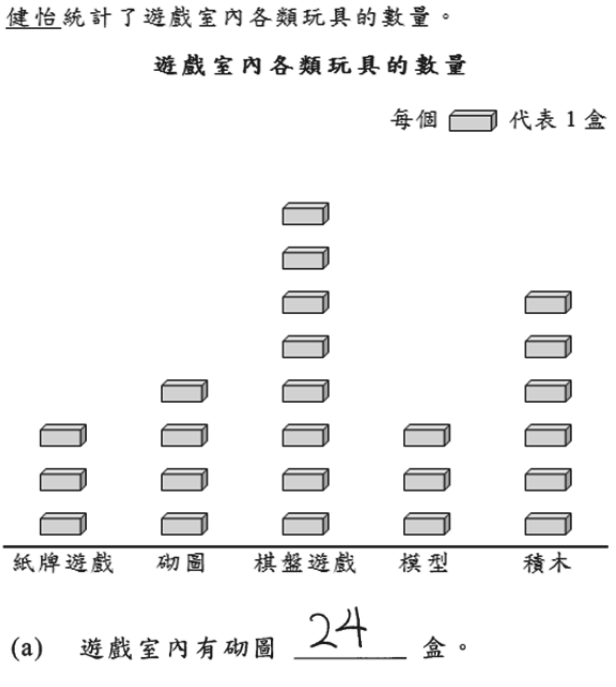
Primary 3 Data Handling Dimension

The performance of P.3 students was very good in the Data Handling Dimension. Students were able to read the data given in pictograms and interpret them to answer straightforward questions. Most of them were good at constructing pictograms from tabulated data. Further comments on students' performance are provided below with examples from different sub-papers quoted in brackets.

Reading and interpreting pictograms

- Most students did well in reading pictograms with a one-to-one representation. They were able to directly read the data given in pictograms (e.g. Q32(a)/M1, Q32(a)/M2, Q32(a)/M3), then compare the data or carry out simple calculations in order to answer the questions (e.g. Q32(b)/M1, Q32(b)/M2, Q32(b)/M3).
- In Q32(a)/M1, a few students were careless in reading the questions. They mistook the total number of boxes of toys for the answer (see an example of students' work as follows).

Q32(a)/M1

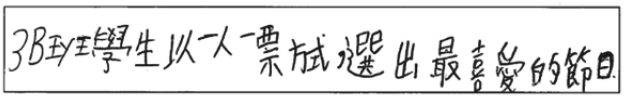


Constructing pictograms

- Most students were capable of constructing pictograms from tabular data and providing a proper title for the pictogram (e.g. Q33/M1, Q33/M3, Q33/M4).

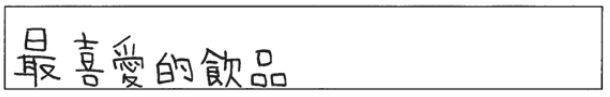
- In Q33(1)/M1 and Q33(b)(1)/M3, a small number of students were not able to give an explicit title in order to express the purpose of conducting the survey (see the examples of student's work on as follows).

Q33(1)/M1

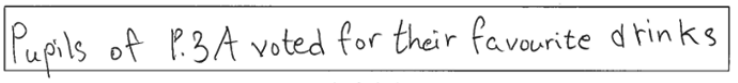


(標題)

Q33(b)(1)/M3



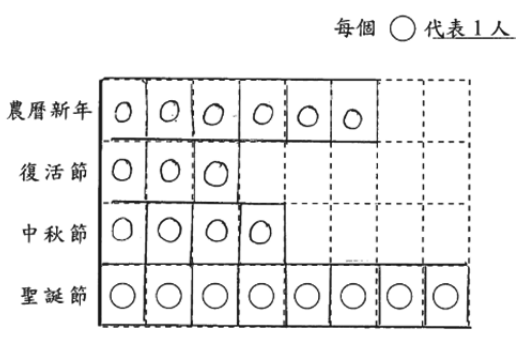
(標題)

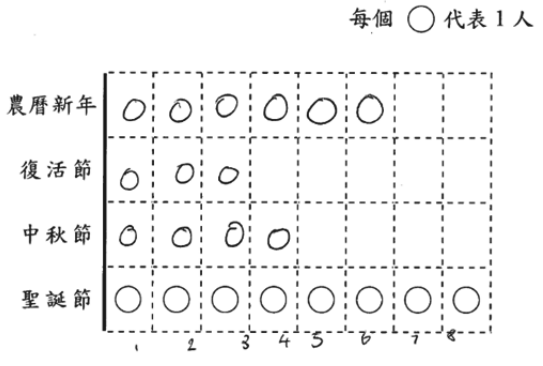


(Title)

- A very small proportion of students unnecessarily drew a grid or added a 'frequency axis' to represent the data given by a pictogram (see the examples of student's work on as follows).

Q33(2)/M1





General Comments on Primary 3 Student Performances

P.3 students performed well in the Number Dimension. The majority of students mastered the basic concepts of whole numbers and fractions as well as the computational skills of the four operations in Key Stage 1. They were able to solve daily application problems and present working steps of solutions. However, a few students mixed up multiplication with division and the 'minuend' with the 'subtrahend'.

The performance of P.3 students was good in the Measures Dimension. The majority of students were able to identify and use Hong Kong money, read the price tags properly, tell the dates and days of a week, tell time from a clock face or a digital clock, and find the duration of an activity. They were also able to measure and compare the length and weight of objects as well as the capacity of containers. They were able to measure and record the length and weight of objects with appropriate tools. However, some students need to deepen their understanding of money exchange and measuring units.

P.3 students performed well in the Shape & Space Dimension. The majority of students were able to identify 3-D shapes and 2-D shapes, straight lines and curves, parallel lines and perpendicular lines, right angles and the four main directions. However, some students should enforce their basic understanding of concepts such as pyramids/cones and prisms/cylinders; trapeziums and parallelograms.

P.3 students did very well in the Data Handling Dimension. Most students were able to read pictograms with a one-to-one representation and interpret the data given in the pictogram to answer simple questions. They could also construct pictograms from tabular data though a small number of students could not explicitly express the title.

Good Performance of Primary 3 Students in 2017

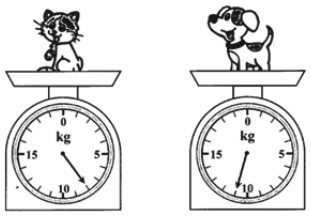
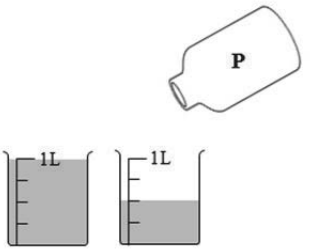
Students with good performance demonstrated mastery of the concepts and skills assessed by the sub-papers. They were more able in doing computations and could solve application problems with different contexts. They were also able to clearly present their solutions in solving problems (see the examples of students' work as follows).

Q10/M2	Q12/M3
329-(96+107) =329-203 =126 三年級有學生126人。	100-9x2 =100-18 =82 He gets $82 change.

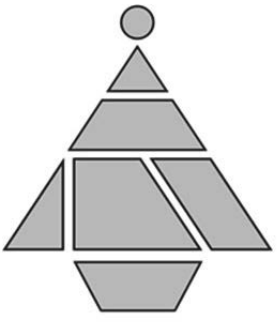
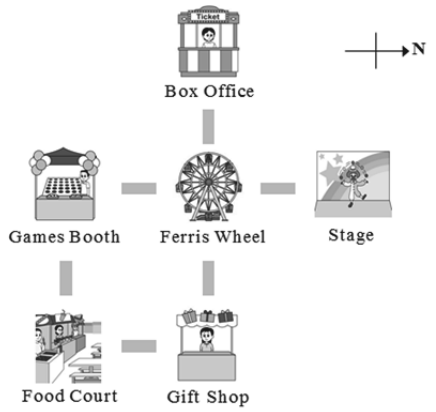
Students with good performance had thorough conceptual understanding of the fractions. They could recognize the relationship between fractions and one as a whole and compare fractions.

Students with good performance were able to identify and use money, read the price tags and correctly exchange money. They could tell the dates and days of a week, tell time from a clock face and digital clock, recognize and apply the '24-hour time' system

and find the duration of an activity. For the length and weight of objects, and the capacity of containers, they were able to compare, choose appropriate tools to measure and record with suitable units (see the examples of students' work as follows).

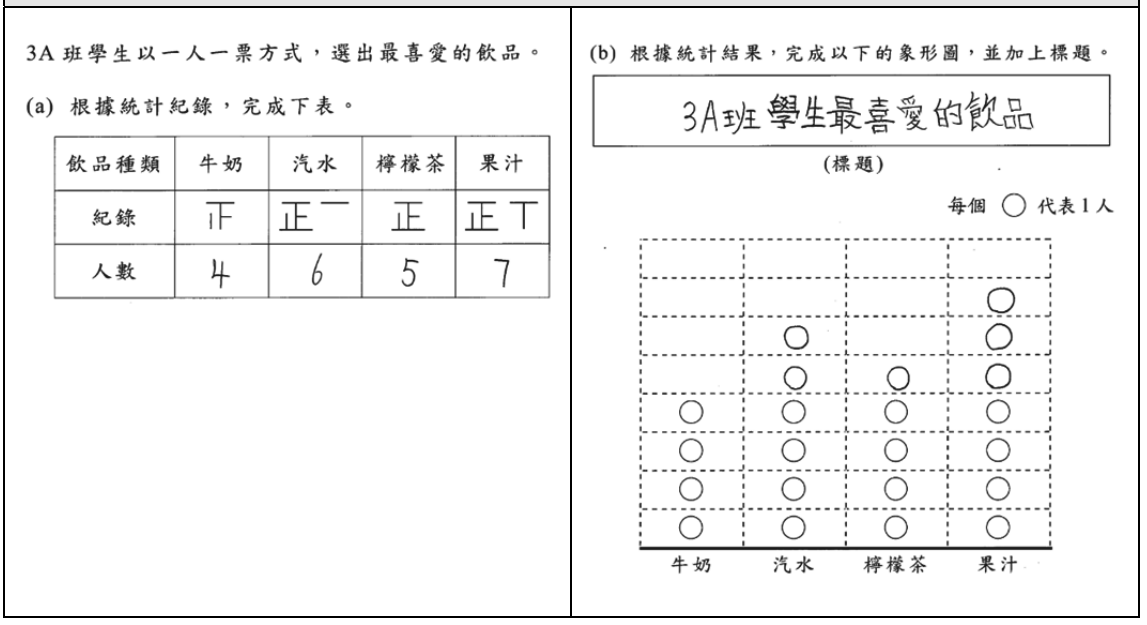
Q23/M1	Q23/M2
 (a)  的重量是 8 kg。 (b)  比  * 輕 / 重 3 kg。 （*圈出答案）	Fill up container **P** with water. Then pour all the water into two empty measuring cups.  The capacity of container **P** is 1500 mL.

Students with good performance were capable of identifying 3-D shapes and 2-D shapes. They demonstrated good recognition of straight lines and curves, parallel lines and perpendicular lines, understanding angles and right angles. They could also solve problems with different contexts involving the four main directions (see the examples of students' work as follows).

Q28/M2	Q31/M3
樂兒用不同的平面圖形拼砌了一幅圖畫。  (a) 上圖有 1 個平行四邊形。 (b) 上圖有 3 個梯形。	The map of a fun fair is shown below.  (a) Cindy goes north from Ferris Wheel to * Box Office / (Stage) / Games Booth . (*Circle the answer) (b) Food Court is to the east (direction) of Games Booth.

Students with good performance were able to read and analyze data from pictograms. They performed well in comparing data and simple calculations to answer the questions according to the relevant information in the pictograms. They could construct pictograms by referring to the given raw data and provide a proper title for a pictogram (see an example of students' work as follows).

Q33/M3



Overview of Primary 3 Student Performances in Mathematics in 2015-2017

The percentages of P.3 students achieving Mathematics Basic Competency in 2015, 2016 and 2017 provided below.

Table 8.2 Percentages of P.3 Students Achieving Mathematics Basic Competency in 2015-2017

Year	% of Students Achieving Mathematics Basic Competency
2015	87.6
2016	89.9
2017	88.2

A comparison of the strengths and weaknesses of P.3 students in 2015, 2016 and 2017 provides useful information for teachers to help students improve their learning. The following tables provide an overview of student performances in each of the four dimensions for these years.

Table 8.3 Overview of P.3 Student Performances in Mathematics in 2015-2017

Year / Number	2015	2016	2017	Remarks
Strengths	• Students were able to recognize the place values of digits in a whole number and the values represented by the digits. • Students did quite well in performing mixed operations of whole numbers. • The majority of students performed steadily in solving simple application problems. • Students performed well in understanding the basic concept of fractions and comparing fractions.	• Students were able to recognize the place values of digits in a whole number and the values represented by the digits. • Students performed well in the mixed operations and solving application problems. • Students could show the solution and the working steps in solving problems. • Students were able to understand the basic concept of fractions and compare fractions.	• Students were able to recognize the places and the values of digits in a whole number. • Students performed steadily in the mixed operations and solving application problems. • Students were able to demonstrate working steps clearly in solving application problems. • Students performed well in understanding the basic concept of fractions and comparing fractions.	• Students should read the question carefully and understand the content when solving the application problems. • Students are recommended to examine the reasonableness of results after answering the questions.
Weaknesses	• Almost half of the students were weak in forming and ordering whole numbers up to 5 digits satisfying specific conditions. • A few students read questions carelessly and could not give meaningful expressions. • A very small proportion of students confused either the subtrahend with the minuend or the dividend with the divisor.	• Some students did not understand the requirements of the questions and performed the calculations carelessly. • Some students could not write the correct mathematical expressions in solving problems or present the answer with the correct unit and conclusion.	• Some students confused multiplication with division in solving application problems. • A few students confused the minuend with the subtrahend in giving the mathematical expressions. • A small number of students were not able to master the computational rule of doing ‘multiplication before addition’.	

Year / Measures	2015	2016	2017	Remarks
Strengths	• Students were able to identify Hong Kong money and read the price tags. • Students performed well in telling the time on a clock face or digital clock. • Students performed well in directly comparing the length and weight of objects, and the capacities of containers. • Students did well in measuring objects with appropriate tools and recording answers with suitable measuring units.	• Students were able to identify Hong Kong money and read the price tags. • Students were capable of telling the dates and days of a week. • Students performed well in telling the time on a clock face or digital clock. • Students could measure and compare the length, weight and capacity of objects. • Students performed well in choosing appropriate tools to measure the height and weight of objects. • Students could record the length and weight of objects with appropriate units.	• Students were capable of reading the price tags and using Hong Kong money. • Students performed well in telling the dates and days of a week and the time on a clock face or a digital clock. • Students were able to measure and compare the length and weight of objects. • Students did well in choosing appropriate tools to measure the length and weight of objects, and the capacity of containers. • Students were able to record the length and weight of objects with appropriate units.	• Students can play more shopping games involving variety of contexts to enrich their experience in using money. • Students should do more practical measuring activities to consolidate their understanding in measuring and recording the length and weight of objects, and the capacity of containers.
Weaknesses	• The performance of students in recording the duration of activities was only fair. • Students were weak in using suitable units to measure and compare the capacity of containers.	• When the amount involved in change is quite large, some students made careless mistakes in calculation. • Students were relatively weak in choosing the appropriate tools for measuring capacity.	• A few students' performance was only fair in money exchange. • Some students were comparatively weak in reading the capacity of containers.	

Year / Shape and Space	2015	2016	2017	Remarks
Strengths	• Students' performance was stable in identifying 2-D shapes and 3-D shapes. • Students were capable of recognizing the simple characteristics of triangles. • Students were capable of identifying straight lines, curves, parallel lines and perpendicular lines. • Students were able to recognize right angles and compare the size of angles. • The performance of students was quite good in recognizing the four directions.	• Students' performance was stable in identifying 3-D and 2-D shapes. • Students were capable of identifying straight lines and curves as well as a pair of parallel lines. • Students performed well in recognizing the four directions.	• Students were able to identify general 3-D and 2-D shapes. • Students had good knowledge of the simple characteristics of triangles. • Students were good at identifying straight lines, curves and parallel lines. • Students performed well in recognizing right angles and comparing the size of angles. • Student performances in recognizing the four main directions were good.	• Let students observe different kinds of 3-D shapes and match the real objects / blocks with their pictures. • Encourage students to identify the perpendicular lines by using appropriate tools such as rulers.
Weaknesses	• Some students easily mistook a prism with triangular faces to be a pyramid. • A small number of students confused spheres with objects with round surfaces. • Some students were weak in recognizing right-angled triangles. • The performance of students dropped when the 'north' direction on a map was not pointing upward.	• Some students were not able to recognize perpendicular lines or confused perpendicular lines with parallel lines. • Some students were not able to judge the correct direction relative to a given reference point.	• Some students were not able to distinguish between prisms/cylinders and pyramids/cones. • A few students were not able to recognize perpendicular lines. • Some students were not able to judge the correct direction relative to a given reference point.	

Year / Data Handling	2015	2016	2017	Remarks
Strengths	• Students were able to read and compare the data given in pictograms in order to answer questions. • Students performed steadily in answering open-ended question. • Students were capable of constructing pictograms from tabular data.	• Students were able to read information from the data given in pictograms and interpret data to answer straightforward questions. • Students could construct pictograms by referring to the given raw data.	• Students were able to read pictograms and retrieve data from the pictogram to answer simple questions. • Students were able to construct pictograms by referring to the given raw data.	• Students should choose appropriate words to compose an explicit title in order to express the purpose of conducting the survey.
Weaknesses	• A small proportion of students were weak in answering open-ended question using the actual data given in pictograms. • Some students used the wrong and ambiguous keywords for the titles.	• A few students could not express explicitly in the title about the purpose of conducting the survey.	• A few students were not able to give an explicit title for the pictogram.	