## Results of Primary 3 Mathematics in TSA 2014

The Territory-wide percentage of P.3 students achieving Mathematics Basic Competency in TSA 2014 was 87.4%. The proportion achieving basic competency in 2014 was almost the same as that in 2012 and 2013.

## 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 Curriculum Guide (P1 – P6), 2000.* The tasks 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 areas.

The Assessment included 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 123 test items (194 score points) covering all of 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. 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 that appear in more than one sub-paper to enable the equating of test scores.

**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 | 20(25) | 19(25) | 19(26) | 18(25) | 58(80) |
| Measures | 8(17) | 10(17) | 10(14) | 8(14) | 29(50) |
| Shape and Space | 8(11) | 8(10) | 8(14) | 8(15) | 29(43) |
| Data Handling | 2(6) | 2(6) | 2(6) | 2(6) | 7(21) |
| Total | 38(59) | 39(58) | 39(60) | 36(60) | 123(194) |

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

## *Performance of P.3 Students with Minimally Acceptable Levels of Basic Competence in TSA 2014*

## P.3 Number Dimension

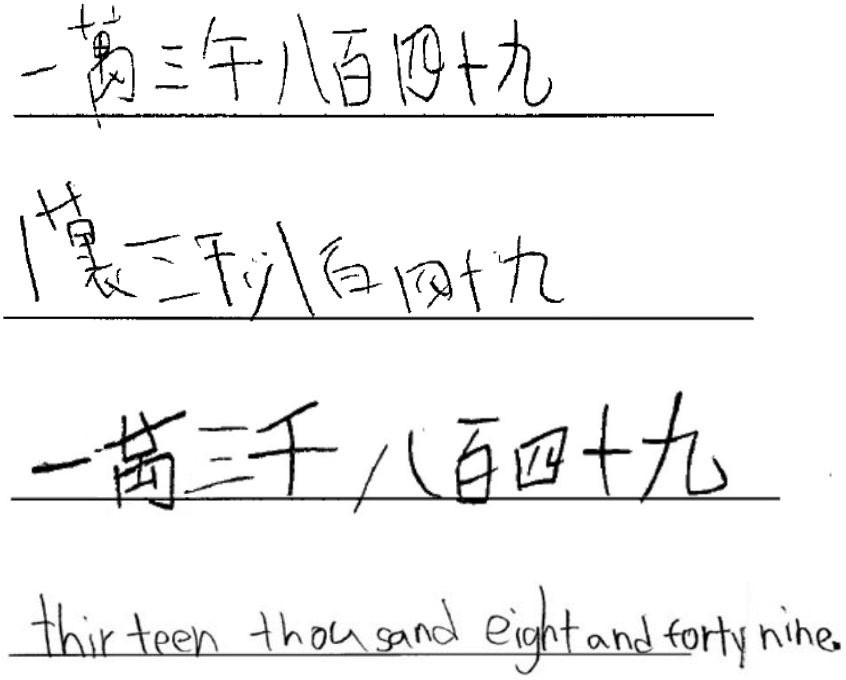
Students' performance in this dimension was satisfactory. Students performed well in addition, subtraction, multiplication and division of whole numbers as well as their mixed operations. In general, students were able to solve application problems and demonstrate working steps clearly in presenting their solutions. A small proportion of students did not understand the meaning of the quotient and remainder in solving problems involving division and ignored the remainder. They could understand the basic concepts of fractions and compare fractions. Further comments on students' performance are provided with examples from different sub-papers quoted in brackets.

***Understanding basic concepts of numbers and fractions***

- Students showed outstanding performance in recognizing the place values of digits in a whole number and the values represented by the digits (e.g. Q2/M1, Q1/M3, Q1/M4). Most students could read, write and order numbers up to 5 digits (e.g. Q1/M1, Q3/M1, Q2/M3). They were also capable in selecting digits to form whole numbers satisfying specific criteria (e.g. Q3/M3).

- A minority of students were not capable of expressing Arabic numbers in correct Chinese characters or English words (see the examples of students' work on Q2/M4).

Q2/M4




- The majority of students were capable of using fractions to represent parts of a whole (e.g. Q18/M1,Q16/M2, Q19/M2, Q16/M4), but some students were not fully aware of the concept about fractions that the whole must be divided into a number of equal parts (e.g. Q17/M1).
- In Q15/M4, a small proportion of students missed the words 'less than' in the stem and chose the option D.
- The majority of students could recognize the relationship between fractions and 1 as the whole (e.g. Q17(a)/M2). Many students were able to compare $\frac{7}{7}$ and 7 (e.g. Q17(a)/M4).
- Most students were able to compare fractions with the same numerators or with the same denominators (e.g. Q19/M1, Q18/M2, Q18/M4). However, a small proportion of students were unable to compare fractions when solving problems with complicated contexts (e.g. Q20/M1).

- The majority of students were able to give fractions satisfying specific criteria (e.g. Q17(b)/M2, Q17(b)/M4).

***Performing basic calculations with whole numbers***

- Addition – Most students performed well at adding whole numbers (e.g. Q4/M1). They were also capable of performing repeated addition of 3-digit numbers including carrying (e.g. Q4/M3, Q3/M4).

- Subtraction – Most students were able to perform subtraction of 3-digit numbers, involving decomposition and repeated subtraction (e.g. Q5/M1, Q6/M1, Q5/M3, Q4/M4).

- Multiplication – Most students were good at performing multiplication of whole numbers up to 1 digit by 3 digits involving carrying (e.g. Q6/M3, Q5/M4) and repeated multiplication (e.g. Q6/M4). They also understood the commutative property of multiplication (e.g. Q7/M1).

- Division – The majority of students were capable in division with a divisor of 1 digit and a dividend of 3 digits (e.g. Q8/M1, Q7/M3, Q7/M4). In Q9/M1, a few students failed to put a zero in the quotient and chose option A.

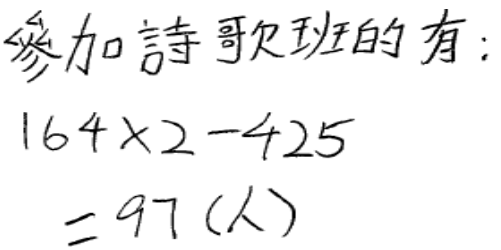
- Mixed operations – The majority of students could perform mixed operations of addition and subtraction (e.g. Q10/M1). When the calculations involved small brackets, e.g. in Q9/M4, a minority of students gave the sum of addition in the brackets and chose option D. Students could handle mixed operations of multiplication and addition/subtraction. But in Q8/M3 and Q8/M4, a few students were not aware of the computational rule of doing 'multiplication/division before addition/subtraction' and chose option D.

***Solving application problems***

- The majority of students in general were capable of solving simple application problems involving addition, subtraction, multiplication, division and mixed operations (e.g. Q11/M1, Q13/M1, Q15/M1, Q16/M1, Q9/M3, Q10/M3, Q11/M3, Q12/M3, Q13/M3, Q11/M4, Q12/M4, Q13/M4). In problems with more complicated contexts, students misunderstood the given conditions due to carelessness in reading the questions (e.g. Q12/M2, Q14/M2).

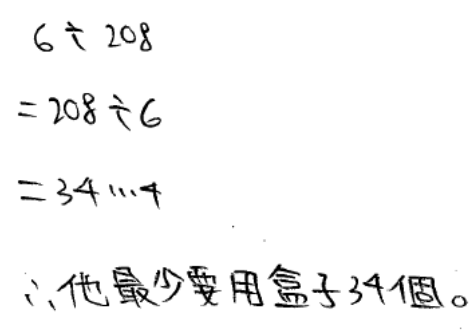
- A very small proportion of students mixed up the 'minuend' with the 'subtrahend' when solving simple problems involving multiplication and subtraction, though they still got the correct answers (see the example of student's work).

Q12/M4

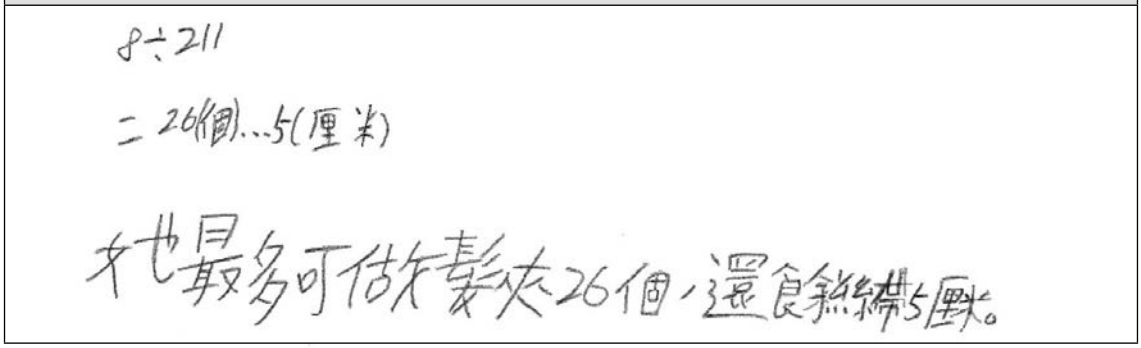



- The majority of students could solve problems involving division (e.g. Q14/M1, Q13/M2). A small proportion of students did not understand the meaning of the quotient and remainder in solving problems involving division, and a small number of them confused the 'dividend' with the 'divisor' or did calculations carelessly (see the examples of students' work).

Q14/M1



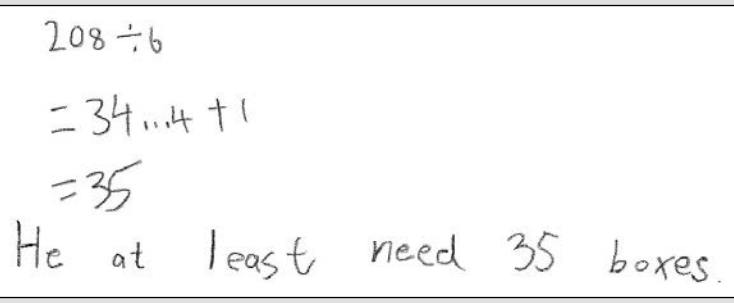
Q13/M2



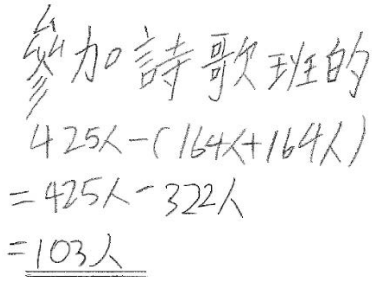

- Students were capable of showing the solutions with correct working steps in solving application problems. However, some students were not able to deduce or explain their answers logically (see the examples of students' work).

(a) Some students were messy in their working steps or made computational errors.

Q14/M1

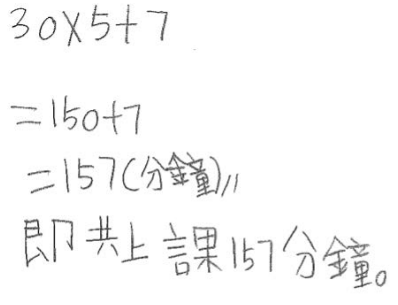



Q12/M4



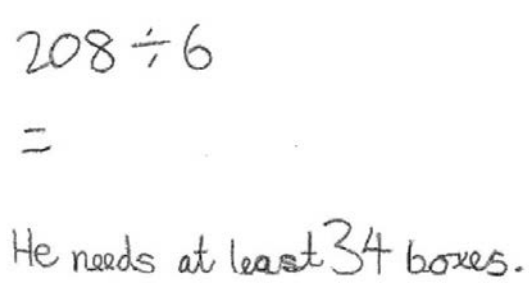

(b) Some students gave incorrect mathematical expression.

Q11/M4



(c) Some students showed incomplete working steps.

Q14/M1




- The majority of students were able to solve problems involving addition and subtraction in the calculation of money (e.g. Q15/M2, Q14/M4). Still, half of the students were not able to perform division involving conversion of dollars to cents (e.g. Q12/M1).

## P.3 Measures Dimension

The performance of students at basic competency was good in this dimension. Most students could identify and use Hong Kong money and read price tags. The majority of students were capable of comparing the length of objects as well as the capacity of containers. They could choose appropriate units of measurements to record the length and the weight of objects, and the capacity of containers. They could also choose appropriate tools to measure the length of objects and the capacity of containers. However, students were weaker in comparing the weights of different objects and measuring weights with appropriate tools.

Most students were able to tell the time on a clock face or a digital clock. They could recognize the dates and days of a week on a calendar. However, there was room for improvement in deducing the number of days needed for activities. Further comments on students' performance are provided with examples from different sub-papers quoted in brackets.

***Hong Kong money***

- Most P.3 students could identify Hong Kong money (e.g. Q21(a)/M1) and read the price tags of goods (e.g. Q20(a)/M2).

- P.3 students could use Hong Kong money (e.g. Q21(b)/M3), but their performance was only fair when they were finding the change of money (e.g. Q20(b)/M2).

Q20(b)/M2


- Many P. 3 students were able to carry out simple money exchanges (e.g. Q22/M1).

***Date and time***

- The majority of students could write down the correct dates and days of a week shown on a calendar (e.g. Q23(a)(c)/M2, Q24(b)(c)/M1). They could also deduce the correct number of days according to the requirement of the question (e.g. Q24(a)/M1, Q23(b)/M2).

- Most students were capable of telling the time on a clock face (e.g. Q25(a)/M1) and a digital clock (e.g. Q21(a)/M4). Students in general understood the '24-hour time' (e.g. Q25(b)/M1,Q25(a)/M2, Q22(a)/M3). Students' performance in working out the duration of an activity was satisfactory when the time was shown on a clock face or a digital clock (e.g. Q25(c)/M1, Q24(b)/M2, Q22(b)/M3). However, when the time was shown both in '12-hour time' system and '24-hour time' system in the same question, students did not do well (e.g. Q25(b)/M2).

Q25(b)/M2

| 播放時間 | 節目名稱 |
|---|---|
| 12：00 | 午間新聞 |
| 12：30 | 足球天地 |
| 14：30 | 卡通電影 |
| 16：15 | 動物世界 |

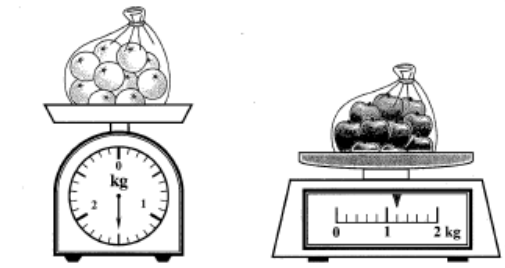
(b) 嘉豪在下午 1 時 43 分開始收看電視，那時「足球天地」已播放了

12 小時 30 分鐘。

***Length, distance, weight and capacity***

- Most students could directly compare the distance of objects (e.g. Q26/M3) and use rulers to measure the length of an object (e.g. Q20/M3).
- The majority of students were capable of using improvised units to compare the length of different objects (e.g. Q19/M4) and comparing distances given in km or 'kilometres' (e.g. Q23/M3).
- Many students could use improvised units to compare the weight of different objects (e.g. Q26/M1). However, in Q22/M4, when the situation required direct comparison, some students had difficulties. A small proportion of students might have thought that the weights of the two objects could not be compared.
- When measuring and comparing the weight of objects using 'kilogram' (kg) (e.g. Q28/M2), students could not read the reading correctly from the tool. When 'gram' (g) was used instead, their performance was good.

Q28/M2




(a)  的重量是 150 g。

(b)  比 

* 輕 / (重) 30 g。(*圈出答案)

- Many students were also capable of using the hand span as an 'ever-ready ruler' for measuring the height of an object (e.g. Q21/M2).
- Students performed quite well in choosing the appropriate measuring tools for measuring the heights of objects and the capacity of containers (e.g. Q25/M3, Q26/M3, Q29/M2). However, in Q27/M3, they were weak in measuring the weights of objects. Only half of the students were able to choose the correct option B.
- The majority of students were able to choose suitable measurement units for recording length (e.g. Q23(a)&(c)/M1, Q22(a)/M2, Q28(a)/M3, Q20(a)&(c)/M4) and weight (e.g. Q23(b)/M1, Q22(b)/M2, Q20(b)/M4). However, a small proportion of students did not have clear understanding of the concepts of 'millimetre' (mm) and 'centimetre' (cm) (e.g. Q23(a)/M1, Q20(c)/M4).

Q23(a)/M1

(a) 一張學生證的闊度約 5 毫米 。

Q20(c)/M4

(c) 一枝牙籤長約 50 cm 。

- A small proportion of students confused the unit of length with the unit of weight (see the example of a student's work on Q22(a)/M2 below).

Q22(a)/M2

(a) 一個書架的高度約 120 千克 。

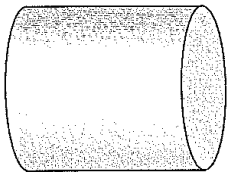
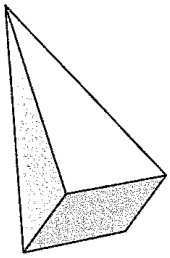
- The majority of students could directly compare the capacity of containers (e.g. Q25/M4) and use improvised units to measure and compare the capacity of containers (e.g. Q28/M1).
- Most students could measure and compare the capacity of containers using 'litre' (L) or 'millilitre' (mL) (e.g. Q29/M3). But students should be more careful in reading a more complicated scale (e.g Q27/M2).

## P.3 Shape & Space Dimension

The performance of P.3 students was good in the Shape & Space Dimension. The majority of students were capable of identifying familiar 2-D and 3-D shapes. They understood the basic concepts of straight lines, curves, parallel lines and perpendicular lines. They were able to compare the size of angles and identify the four directions correctly. Further comments on students' performance are provided with examples from different sub-papers quoted in brackets.

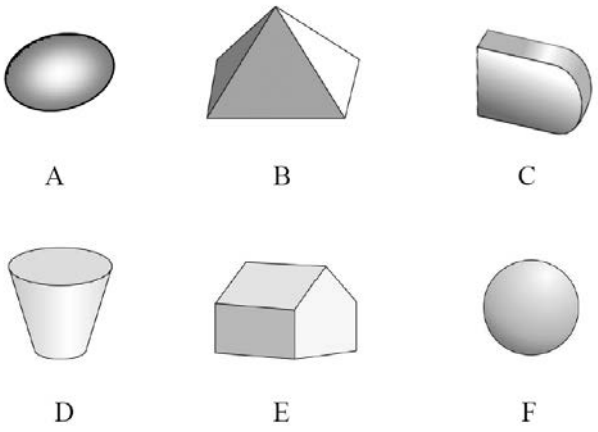
***3-D Shapes***

- Most students were capable of identifying 3-D shapes (e.g. Q29/M1, Q30/M1, Q30/M2, Q30/M3, Q27/M4) including cylinders and pyramids (see the examples of students' work on Q30/M2 and Q27/M4).

| Q30/M2 | Q27/M4 |
|---|---|
|  <br>以上的立體圖形是一個<br>○ A. 圓錐。<br>○ B. 角錐。<br>● C. 圓柱。<br>○ D. 角柱。 |  <br>以上的立體圖形是一個<br>○ A. 三角形。<br>○ B. 平行四邊形。<br>● C. 角錐。<br>○ D. 角柱。 |

- The majority of P.3 students were able to identify spheres, pyramids/cones or prisms/cylinders (e.g. Q33/M2, Q32(a)/M3). They could also classify familiar 3-D objects in real life (e.g. Q28/M4). However, some students mistook objects similar in appearance as spheres or cones (see the example of students' work on Q33/M2).

Q33/M2



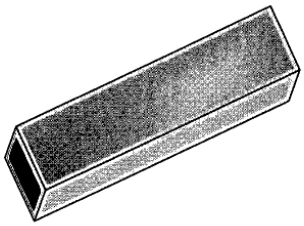

列出：

(a) 球體：F、A

(b) 錐體：D

- A small proportion of students confused rectangular prisms (3-D shapes) with rectangles (2-D shapes) (see the example of students' work on Q32/M2).

Q32/M2

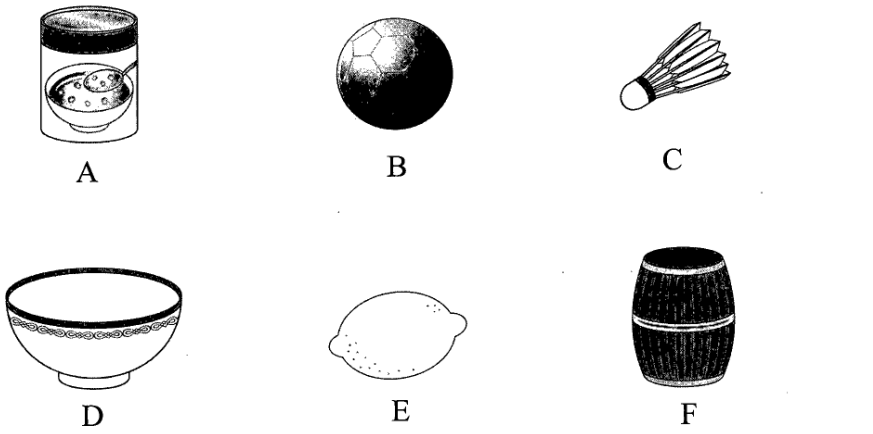


以上的立體圖形是一個

○ A. 圓柱。
○ B. 角柱。
○ C. 角錐。
● D. 長方形。

- Some students mistook objects with curved surfaces as cylinders (see the example of students' work on Q28(b)/M4).

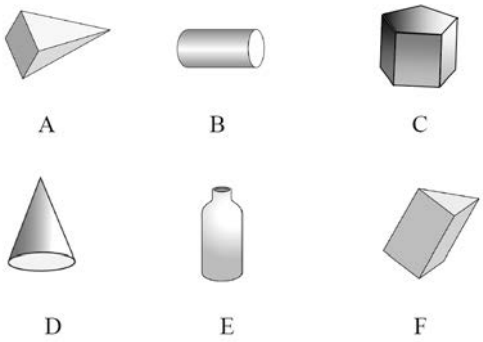
Q28(b)/M4




(b) 圓柱：A、C、D、F

- Some students mistook cylinders as cones or pyramids as prisms (see the example of students' work on Q32/M3).

Q32/M3

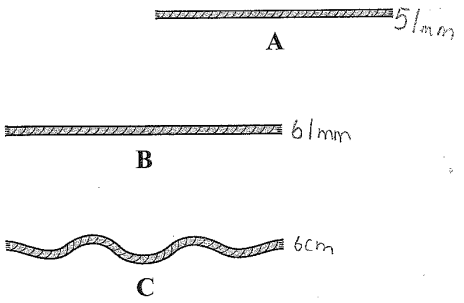



(a) 圓錐：D、B、

(b) 角柱：A、C、F

- A small proportion of students were unable to compare the length of objects (e.g. in Q31/M2, they only measured the length between the two ends of strings and mistook string B to be the longest).

Q31/M2




觀察上圖，哪條繩子最長？

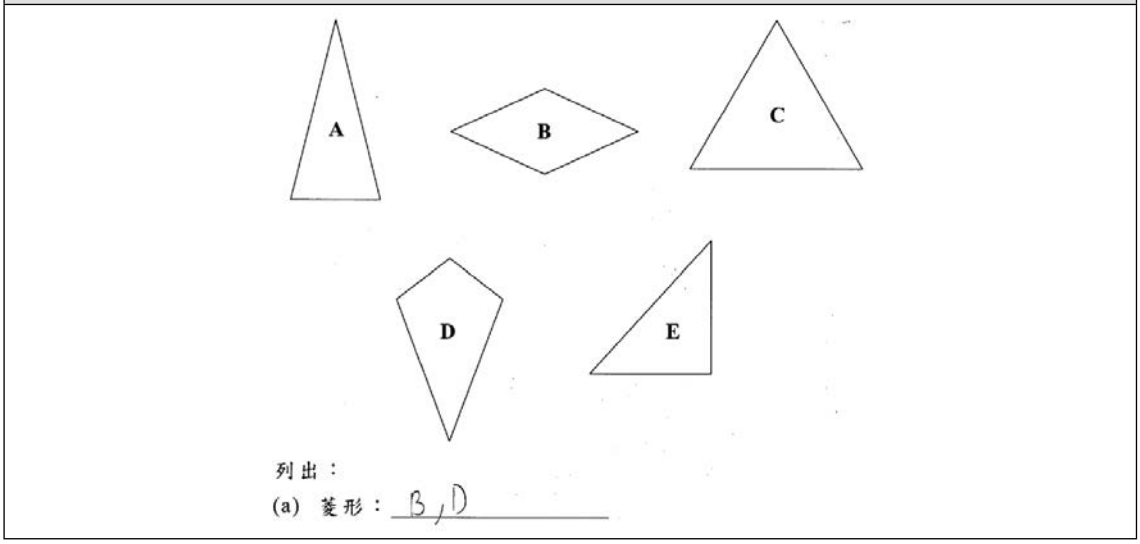
答案：繩子 * A / (B) / C 最長。

(*圈出答案)

***2-D Shapes***

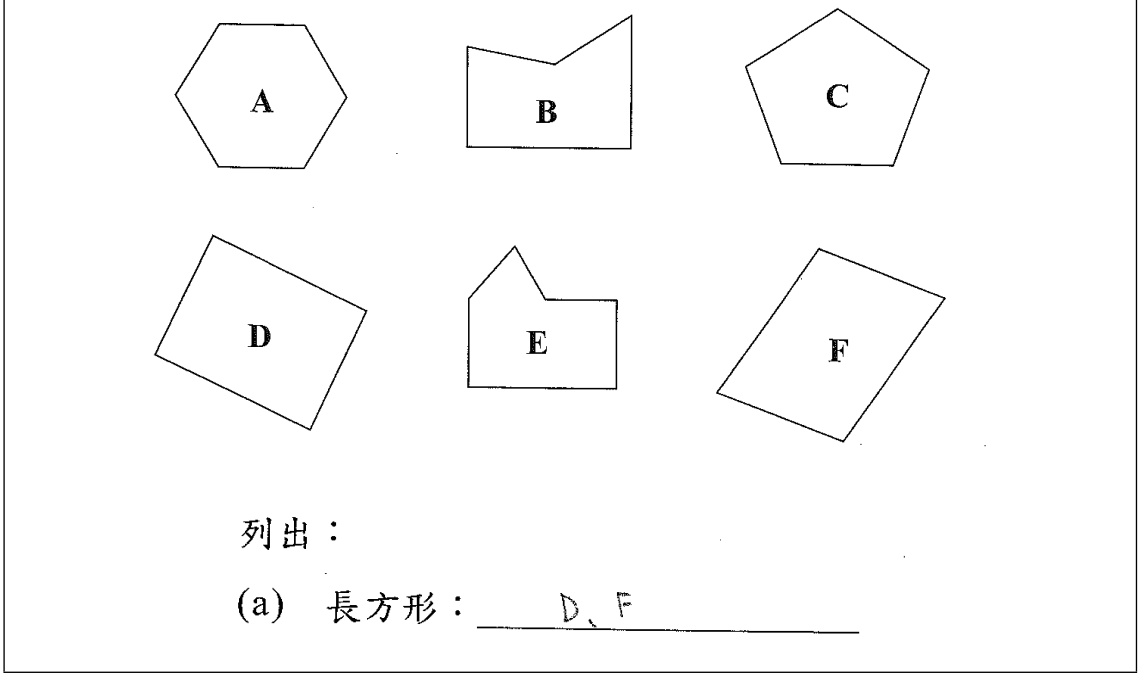
- The majority of students could identify 2-D shapes (e.g. Q31(a)/M1, Q31/M3, Q31(b)/M4) but a small number of students confused rhombuses with kites (see the example of students' work on Q31(a)/M1).

Q31(a)/M1



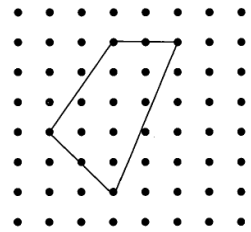

- A small proportion of students confused rectangles with parallelograms when these shapes were not drawn in a commonly seen orientation, for instance, tilted towards the left or right (see the example of students' work on Q31(a)/M4).

Q31(a)/M4



- More than one quarter of students confused a quadrilateral with a trapezium and wrongly chose option C in Q31/M3 (see the example of a student's work).

Q31/M3



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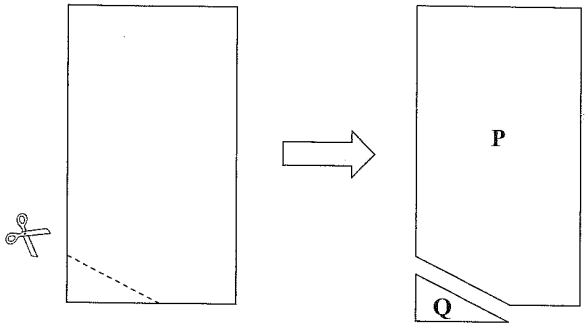
○ A. 三角形。
○ B. 四邊形。
● C. 梯形。
○ D. 長方形。

- Some students confused a pentagon with a trapezium (about a quarter of the students chose option B in Q34/M2).

Q34/M2

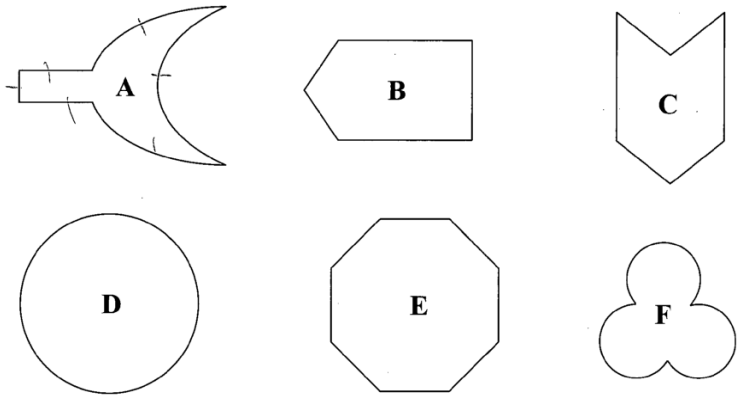



沿着虛線把上面的長方形剪開後，可得兩個圖形。
圖形 **P** 是一個

○ A. 三角形。
● B. 梯形。
○ C. 平行四邊形。
○ D. 五邊形。

- Some students wrongly classified figures with curved sides as polygons (see the example of students' work on Q35(a)/M3).

Q35(a)/M3

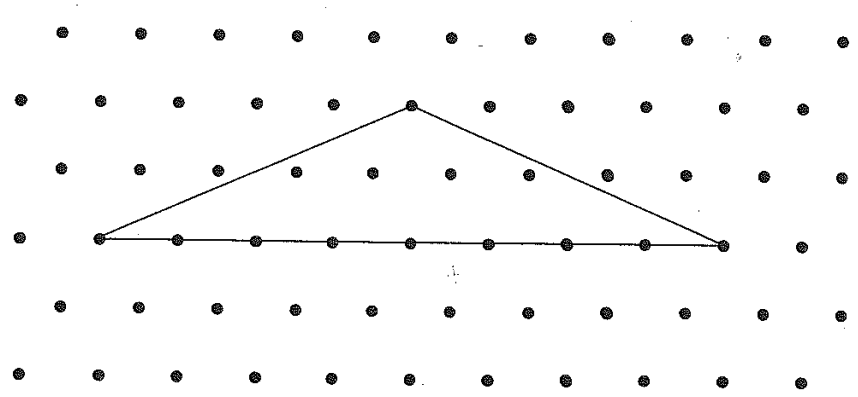



列出：

(a) 六邊形：A, C

- The majority of P.3 students were able to identify equilateral triangles and isosceles triangles (e.g. Q31(b)/M1, Q33/M3).

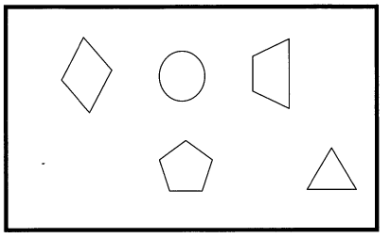
Q33/M3



上圖是一個 * 直角 / (等腰) / 等邊 三角形。
(*圈出答案)

- Most students performed well in identifying right-angled triangles (e.g. Q32/M1, Q37(b)/M2).
- The majority of students could describe the relative positions of two 2-D shapes. However, the performance of a few students was weak in using left or right to tell the relative position of objects (see the example of students' work on 33(b)/M4).

Q33(b)/M4



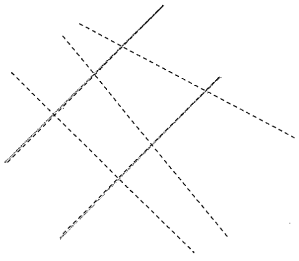
△ 在 ⬠ 的

* 上方 / 下方 / 左方 / 右方 。
(*圈出答案)

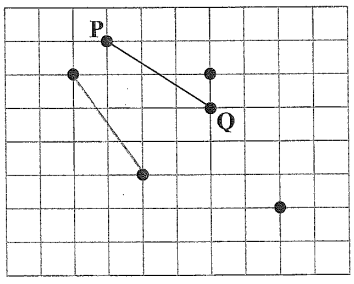
***Straight Lines and Curves***

- Most students were capable of identifying straight lines and curves (e.g. Q36/M3). They were also good at identifying the parallel lines in given figures (e.g. Q33/M1, Q36/M2).

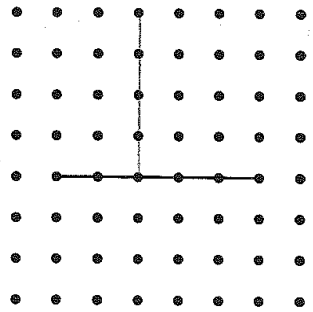
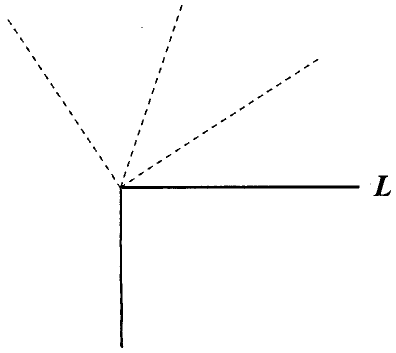
Q36/M2



Q33/M1



- Most students were capable of tracing perpendicular lines (e.g. Q34/M1, Q35/M2, Q30/M4).

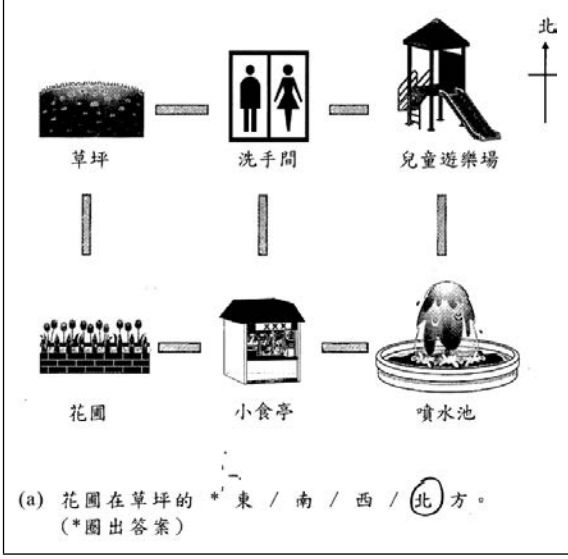
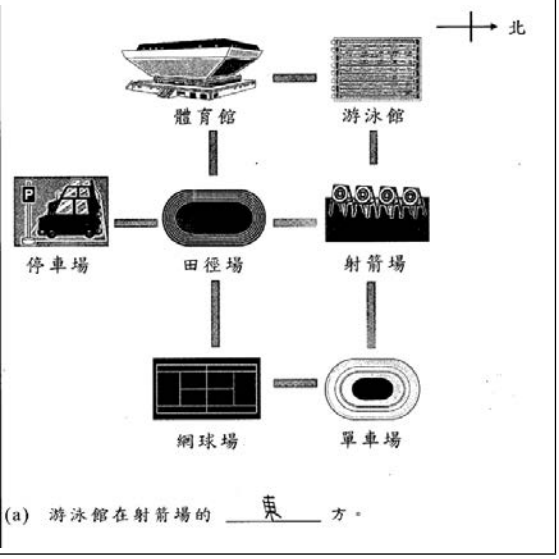
| Q35/M2 | Q30/M4 |
|---|---|
|  |  |

***Angles***

- Most students could compare angles (e.g. Q35/M1) including the size of an angle relative to a right angle (Q37(a)/M2, Q34/M3).

***Directions***

- Most students were capable of recognizing the four directions: north, east, south, west and locating the correct position (e.g. Q36(a)&(b)/M1, Q37(b) & (c)/M3).
- However, some students could not correctly state the direction relative to a reference point, especially when the 'north' direction was not pointing upward as usual (see the examples of students' work on Q36(a)/M1 and Q37(a)/M3).

| Q36(a)/M1 | Q37(a)/M3 |
|---|---|
|  |  |

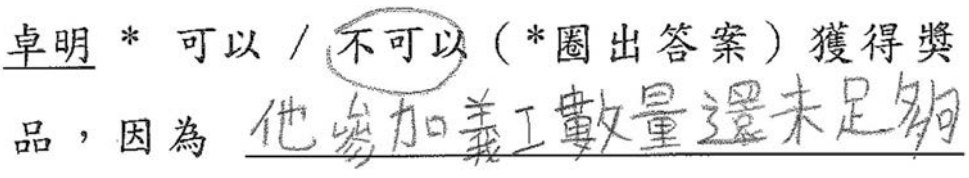
## P.3 Data Handling Dimension

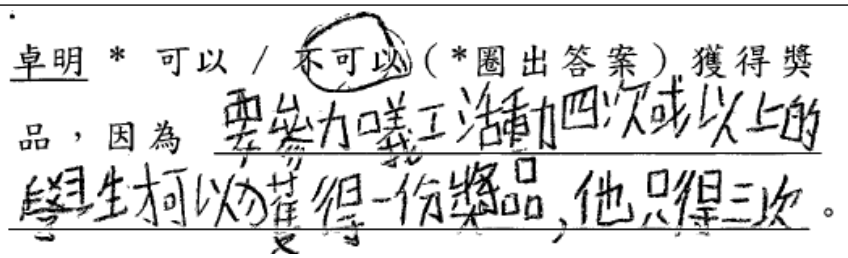
Students performed very well in this Dimension. They could read information from the data given in pictograms and interpret data to answer straightforward questions. They were also capable of constructing pictograms from tabulated data. Further comments on students' performance are provided with examples from different sub-papers quoted in brackets.

***Reading and interpreting pictograms***

- Most students could read and directly interpret the data from given pictograms (e.g. Q37(a)/M1, Q38(a)/M2, Q39(a)/M3, Q36(a)&(b)/M4), and carry out simple calculations in order to answer questions (e.g. Q37 (b)&(c)/M1, Q38 (b)&(c)/M2, Q39(b) /M3, Q36(c)/M4).
- In answering open-ended questions, the majority of students were able to apply the actual data given in pictograms and give the correct inference and explanation (e.g. Q39(c)/M3) (see the examples of students' work).

Q39(c)/M3



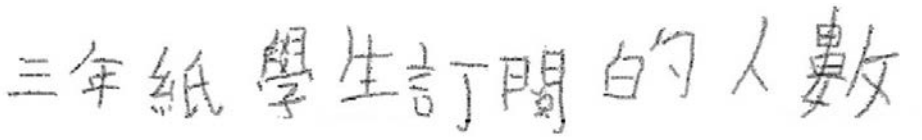



***Constructing pictograms***

- The majority of students were capable of constructing pictograms from tabular data and providing a proper title for a pictogram (e.g. Q38/M1, Q39/M2, Q38/M3), though few students could not use the appropriate keywords for the titles (see the examples of students' work).

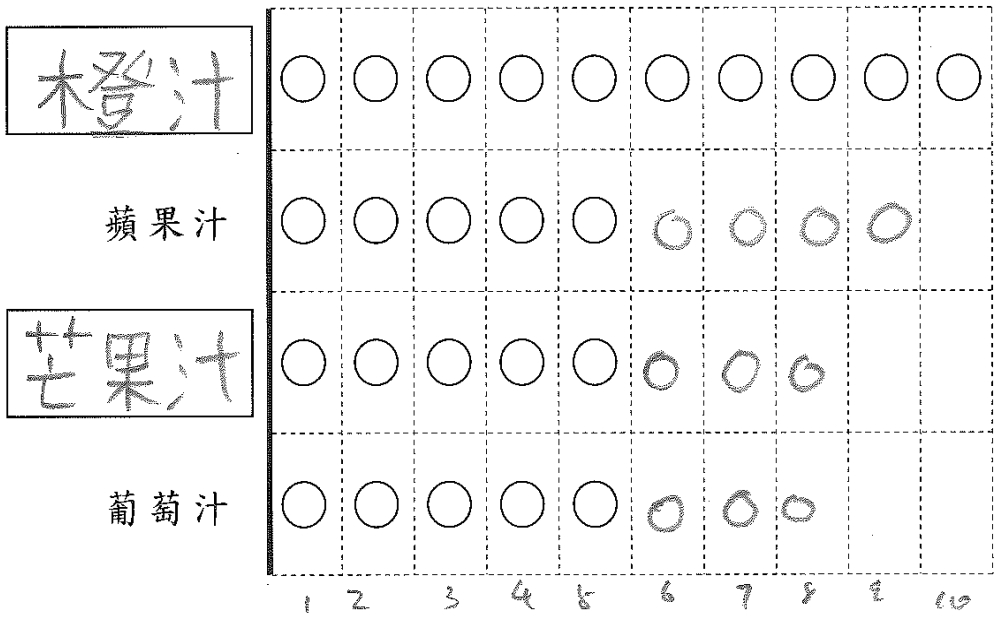
Q39/M2

Q38/M3



- A very small proportion of students unnecessarily added a 'frequency axis' to represent the data given by a pictogram whereas few of them might have confused pictograms with bar charts (see the example of student's work).

Q39/M2



## General Comments on P.3 Student Performances

P.3 students performed well in the Number Dimension. The majority of students demonstrated mastery of basic concepts and computational skills taught in Key Stage 1. They were able to solve simple application problems and correctly present proper working steps for their solutions. However, a few students still could not write their mathematical expressions correctly or give clear explanations or concluding statements, particularly in application problems with more complicated contexts. Students were particularly weak in solving problems involving division of money.

In the Measures Dimension, students generally were able to grasp the basic mathematical concepts and skills. They were able to identify and use Hong Kong money, tell time on a clock face or digital clock, measure and compare the length of objects and the capacity of containers, choose appropriate measuring tools to measure length of objects and the capacity of containers. However, their performance was relatively weak in exchanging money, comparing the weights of objects and choosing appropriate measuring tools to measure the weight of objects.

P.3 students performed well in the Shape & Space Dimension. The majority of students were capable of recognizing 2-D shapes, 3-D shapes, straight lines, curves and the four directions. They were able to compare the size of angles. However, a small proportion of students could not identify quadrilaterals, hexagons, pentagons and a set of parallel lines or perpendicular lines.

Students did very well in the Data Handling Dimension. They could read data from given pictograms with a one-to-one representation and construct pictograms from tabular data. Also, they could interpret the data given in pictograms and give reasonable explanations.

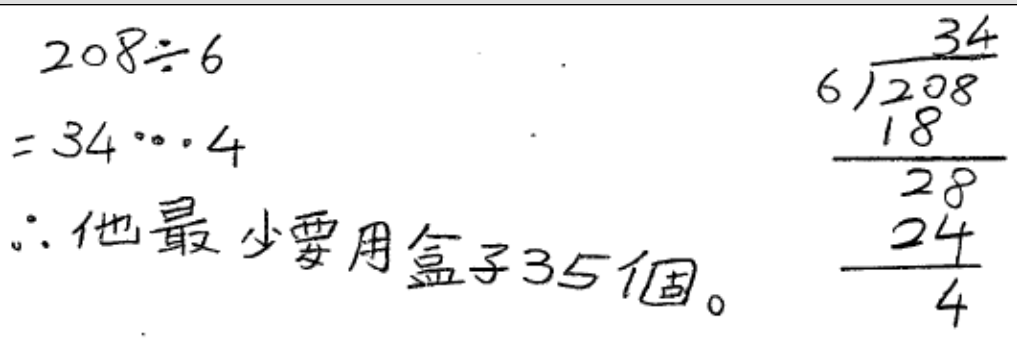
## Best Performance of P.3 Students in TSA 2014

Students sitting for each sub-paper were ranked according to their scores and the performances of approximately the top 10% were singled out for further analysis. The performances of these students are described below.

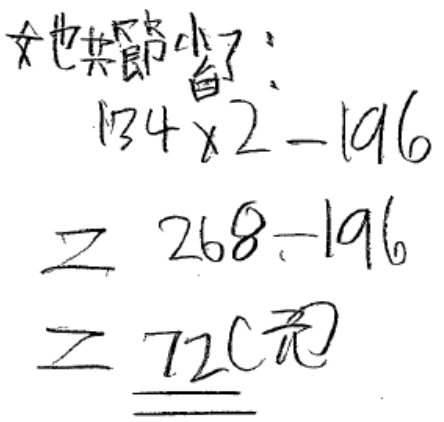
Among these students, the majority of students achieved a full score or lost at most one score point in the whole assessment. That is, they demonstrated an almost complete mastery of the concepts and skills being assessed by the sub-papers they attempted.

The best performing students were very good at arithmetic computations and could solve application problems with more complicated contexts. They were capable of presenting their solutions with clear working steps and explanation. Most of them were able to solve problems in the division of money involving conversion of money. These students demonstrated sufficient understanding of the concept of fractions. They were capable of recognizing the relationship between fractions and the whole as well as comparing fractions (see the examples of students' work).

Q14/M1




Q12/M2

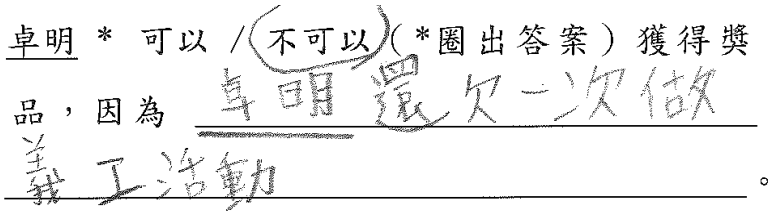



The best performing P.3 students performed well in questions regarding Hong Kong money and time, choosing suitable measurement units and measuring with appropriate tools. They were very good at comparing directly or using improvised units, the length and weight of objects and the capacity of containers.

The best P.3 students had a good comprehension of 2-D and 3-D shapes. They were capable of identifying figures composed of straight lines and curves, comparing the size of angles, recognizing a set of parallel lines or perpendicular lines and recognizing the four directions.

The best performing students were capable of constructing pictograms according to the supplied data. They could analyze data and extract relevant information from a pictogram to construct their reasoning (see the example of student's work).

Q39(c)/M3




## *Overview of Student Performances in Mathematics at Primary 3 TSA 2012-2014*

The percentages of students achieving Basic Competency in 2012, 2013 and 2014 are provided below.

**Table 8.2 Percentages of P.3 Students Achieving Mathematics Basic Competency in 2012, 2013 and 2014**

| Year | % of Students Achieving Mathematics Basic Competency |
|---|---|
| 2012 | 87.3 |
| 2013 | 87.5 |
| 2014 | 87.4 |

A comparison of the strengths and weaknesses of P.3 students in TSA 2012, 2013 and 2014 provides teachers with useful information on how to help students improve their learning. The following provides a comparison of the students' performances in each of the four Dimensions for the last three years.

**Table 8.3 Overview of Student Performances in Mathematics at P.3 TSA 2012-2014**

| Year / Number | 2012 | 2013 | 2014 | Remarks |
|---|---|---|---|---|
| **Strengths** | • Students recognized the place values of digits in a whole number and the values represented by its digits.<br>• Students did better in performing mixed operations of whole numbers.<br>• Students performed well in solving simple application problems.<br>• Students' performance in understanding the basic concept of fractions and comparing fractions was satisfactorily. | • Students performed well in questions involving concepts of place values and mixed operations of whole numbers.<br>• Students performed satisfactorily in solving simple application problems.<br>• Students' performance in handling division problems involving remainders was steady.<br>• Students performed well in understanding the basic concept of fractions and comparing fractions. | • Students showed an outstanding performance in recognizing the place values of digits in a whole number and the values represented by the digits.<br>• Students were able to select digits to form 5-digit numbers satisfying specific criteria.<br>• Students did quite well in performing mixed operations of whole numbers and solving simple application problems.<br>• The majority of students were able to solve application problems and demonstrate working steps clearly in presenting their solutions.<br>• The majority of students were capable of using fractions to represent parts of a whole. | • Students were relatively weak in solving problems involving calculations of money, probably due to the lack of relevant experience in their daily lives.<br>• Students should study the questions carefully before answering. |

| Year / Number | 2012 | 2013 | 2014 | Remarks |
|---|---|---|---|---|
| **Weaknesses** | • Some students were unable to form and order whole numbers up to 5 digits satisfying specific conditions.<br>• Students' performance declined on division where there was a remainder.<br>• A few students read questions carelessly and could not give meaningful expressions.<br>• Some students were relatively weak in solving problems involving calculations of money.<br>• Students were not aware of the concept about fractions that the whole must be divided into a number of equal parts. | • Students were relatively weak in solving problems involving calculations of money, and they were particularly weak in solving problems involving division of money.<br>• A minority of students confused either the subtrahend with the minuend or the dividend with the divisor.<br>• Students sometimes misinterpreted questions due to carelessness. | • Some students were not aware of the concept about fractions that the whole must be divided into a number of equal parts.<br>• A very small proportion of students confused either the subtrahend with the minuend or the dividend with the divisor.<br>• A few students did not understand the meaning of the quotient and remainder in solving problems involving division and ignored the remainder.<br>• Students were particularly weak in performing division involving conversion of dollars to cents. | |

| Year / Measures | 2012 | 2013 | 2014 | Remarks |
|---|---|---|---|---|
| **Strengths** | • Students were able to identify Hong Kong money as well as the exchange and use of money.<br>• Students performed well in telling the time on a clock face or digital clock.<br>• Students performed well in comparing the weight of objects directly and measuring and comparing the weight of objects using improvised units.<br>• Students did well in measuring with appropriate tools and choosing suitable measuring units. | • Students were able to identify Hong Kong money.<br>• Students could write the dates and days of a week from a calendar correctly.<br>• Students performed well in telling the time on a clock face or digital clock.<br>• Students were able to measure and compare the distance between objects.<br>• Students were able to compare the length of objects and the capacity of containers using improvised units. | • Students were able to identify Hong Kong money.<br>• Students could write the dates and days of a week from a calendar correctly.<br>• Students performed well in telling the time on a clock face or digital clock.<br>• Students were able to measure and compare the length of objects and the capacity of containers.<br>• Students could record the length and weight of objects as well as the capacity of containers.<br>• Students could choose appropriate measuring tools to measure length of objects and the capacity of containers. | • Students were more able to measure and compare the length of objects, choose appropriate tools and suitable units for measuring and recording than measure the weight of objects and capacity of containers.<br>• The performance of students in comparing the weight of objects and the capacity of containers was only fair. It may be due to a lack of practical experience in their daily life. |
| **Weaknesses** | • Students were weak in recognizing the leap year.<br>• The performance of students in recording the duration of activities was only fair.<br>• Students' performance was only fair in measuring the capacity of containers using improvised units. | • In deducing the number of days of an activity, the performance of students was only fair.<br>• The performance of students in recording the duration of activities was only fair.<br>• Students' performance was poor in comparing the weight of objects directly or indirectly.<br>• Students were relatively weak in comparing the capacity of containers directly. | • Students' performance was only fair in handling the exchange of money.<br>• Students' performance was relatively weak in comparing the weight of objects and choosing appropriate measuring tools to measure the weight of objects. | |

| Year / Shape and Space | 2012 | 2013 | 2014 | Remarks |
|---|---|---|---|---|
| **Strengths** | • Students were able to identify 2-D shapes and 3-D shapes.<br>• Students were capable of recognizing the simple characteristics of triangles.<br>• Students were capable of identifying straight lines and curves as well as recognizing a set of parallel lines or perpendicular lines.<br>• Students were able to recognize right angles and compare the size of angles.<br>• The performance of students was good in recognizing the four directions. | • Students performed well in identifying 2-D and 3-D shapes.<br>• Students' performance was stable in recognizing the simple characteristics of triangles.<br>• Students' performance was good in identifying straight lines and curves as well as tracing a pair of parallel lines or perpendicular lines.<br>• Students did well in recognizing right angles and comparing the size of angles.<br>• Students were capable of recognizing the four directions. | • Students improved in identifying 2-D shapes and 3-D shapes.<br>• Students' performance was improved in recognizing the simple characteristics of triangles.<br>• Students were good at identifying straight lines and curves as well as recognizing a set of parallel lines and perpendicular lines.<br>• Students performed well in comparing the size of angles.<br>• Students were capable of recognizing the four directions. | • To improve this dimension it is suggested that students be shown more 'non-standard' examples in the classroom, for instance, 2-D figures in different 'orientations', or the 'north' direction on a map pointing to the left or right instead of upward. |
| **Weaknesses** | • Some students confused prisms with pyramids, especially with solids having triangular faces.<br>• A small number of students confused a circle with an ellipse.<br>• Some students were weak in identifying right-angled triangles placed in different orientations. | • Some students confused a triangular prism with a triangle.<br>• Many students were rather weak in identifying prisms.<br>• Some students confused 'long and thin' right-angled triangles with isosceles triangles. | • Some students were weak in grouping 2-D shapes and wrongly classify figures having curves and straight lines as polygons.<br>• There is room for improvement in recognizing the four directions when the 'north' direction on a map was not pointing upward.<br>• Some students were not able to judge the correct direction relative to a reference point. | |

| Year / Data Handling | 2012 | 2013 | 2014 | Remarks |
|---|---|---|---|---|
| **Strengths** | • Students were able to read and compare the data given in pictograms in order to answer questions.<br>• Students were capable of constructing pictograms from tabular data. | • Students were good in reading the data given in the pictograms and carried out simple calculations.<br>• The majority of students were able to construct pictograms from tabular data. | • Students did well in reading and interpreting the data directly from given pictograms, and carry out simple calculations in order to answer questions.<br>• Students showed improvement in answering open-ended question.<br>• The majority of students were capable of constructing pictograms from tabular data. | • Students should choose the appropriate keywords for the titles. |

| Year / Data Handling | 2012 | 2013 | 2014 | Remarks |
|---|---|---|---|---|
| **Weaknesses** | • Students were not able to apply the actual data given in pictograms and give the correct inference and explanation when answering open-ended question.<br>• Students used the wrong and ambiguous keywords for the titles. | • Students were weak in answering open-ended question using the actual data given in pictograms.<br>• A few students just copied the wording in the question to give a title or did not use the information to assist in their choice of keywords for the title. | • A few students could not use the appropriate keywords for the titles. | |