MINISTRY OF EDUCATION, YOUTH & INFORMATION

Primary Exit Profile

Quantitative Reasoning

Grade 6 Ability Test Sample Items

Table of Contents

Introduction

This booklet consists of items originally found on the 2019 administration of the Primary Exit Profile (PEP) Ability Test (AT). Ten (10) quantitative items are contained within this booklet and together they provide a guide that should support the preparation of students for the 2022 administration of the Ability Test (AT).
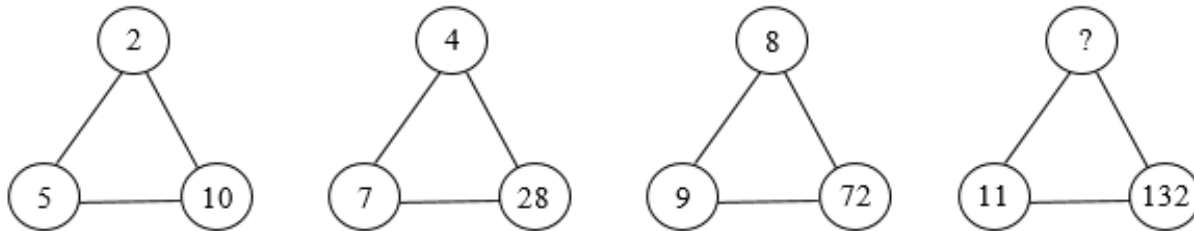
Characteristics of Items

Item Number: 1

Item Type:	Single Select Multiple Choice

Cognitive Level: Medium

Item Description:	Students are required to determine the missing number using the pattern given.

The numbers in each diagram below follow the same rule. Use the first three diagrams to help you find the missing number in the fourth pattern.
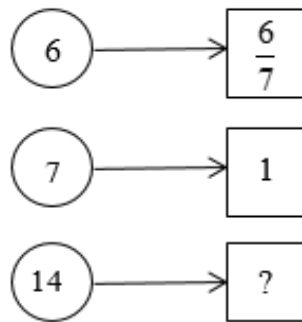

A. 16
B. 14
C. 12
D. 10

Item Key: C

Item Number: 2

Item Type:	Single Select Multiple Choice

Cognitive Level: Medium

Item Description:	Students are required to determine the missing number using the pattern given.

A pattern is shown below. Look at the first two rows in the pattern to help you work out the missing number in the third row.

A. $\dfrac{14}{15}$

B. 2

C. $\dfrac{62}{7}$

D. 14

Item Key: B

Item Number: 3

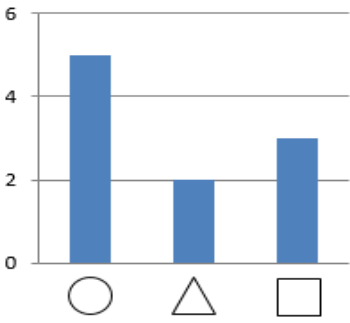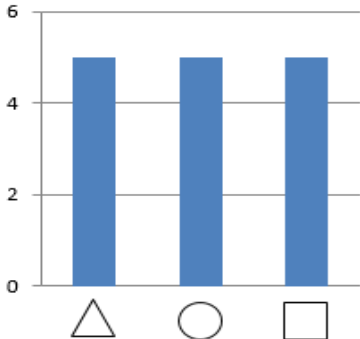|	
Item Type:	Single Select Multiple Choice
Cognitive Level:	Low
Item Description:	Students are required to select the bar chart that represents the number of each shape given.

Andrew represented the shapes below on a chart.
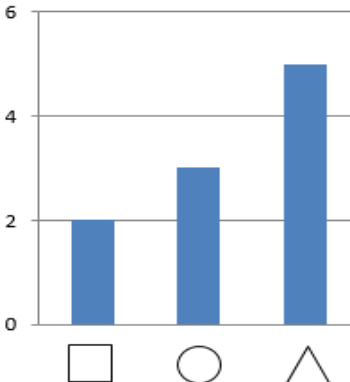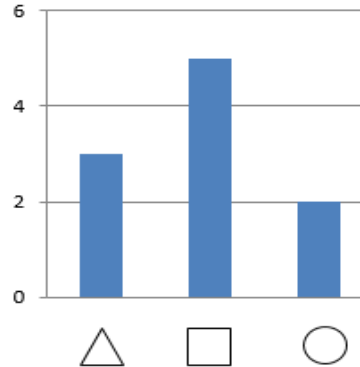
◯ △ △ ▢ ◯ ▢ ▢ ▢ △ ▢

Which chart correctly represents the information?

   A. Chart I
   B. Chart II
   C. Chart III
   D. Chart IV

Item Key: D
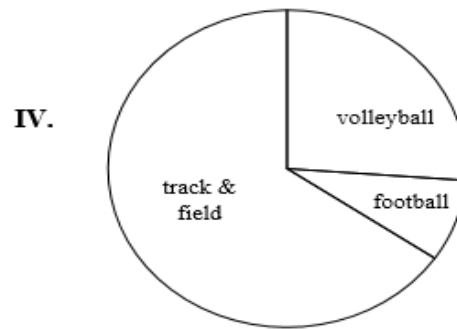
Item Number: 4

Item Type:	Single Select Multiple Choice

Cognitive Level: High

Item Description:	Students are required to use the results of the survey to select from the options given, a chart that the results represent.

A survey was done and 40 grade six students were asked about their favourite sport. The following information was gathered.
- No more than 10 students chose volleyball.
- More students chose football as their favourite sport than the number of students who chose volleyball.
- More students chose track & field as their favourite sport than football and volleyball together.

I.

II.

III.

IV.
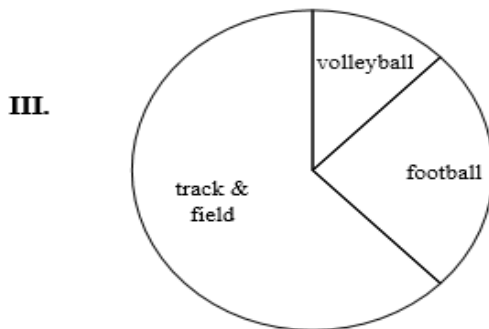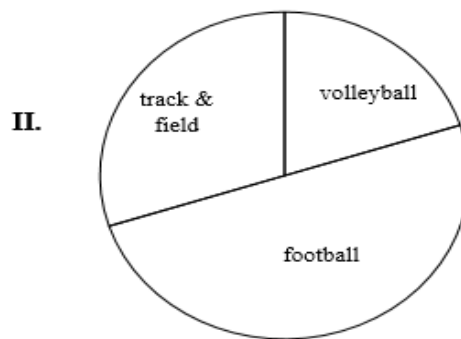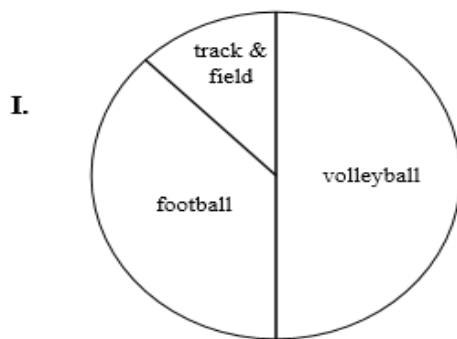
Which chart **best** represents the information gathered from the survey?

    A. Chart I
    B. Chart II
    C. Chart III
    D. Chart IV

Item Key: C

Item Number: 5

Item Type:	Single Select Multiple Choice
Cognitive Level:	Medium
Item Description:	Students are required to draw a conclusion based on the comparison of two numbers given within a range.

The numbers 1 through 10 are placed in bag. Paul picks a number from the bag then performs the operations stated under Column A and Column B on the number.

Column A	Column B
The number multiplied by itself and then add 1	Double the number and then subtract 1

From the information given, which statement is correct?

A.   The number in Column A is greater than the number in Column B.

B.   The number in Column B is greater than the number in Column A.

C.   The number in Column A is equal to the number in Column B.

D.   The answer cannot be determined by the information given.
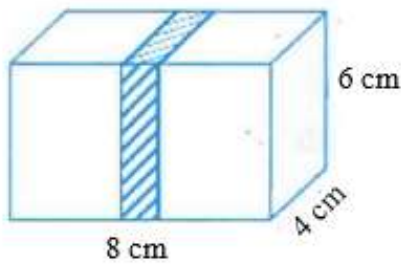
Item Key: A

Item Number: 6

Item Type:	Single Select Multiple Choice
Cognitive Level:	High
Item Description:	Students are required to use their knowledge of perimeter to compare the two lengths given.

The diagram below shows 2 rectangular boxes with a striped ribbon wrapped around each.

6 cm

4 cm

8 cm

Box A

The ribbon is wrapped vertically around the box

6 cm

4 cm

8 cm
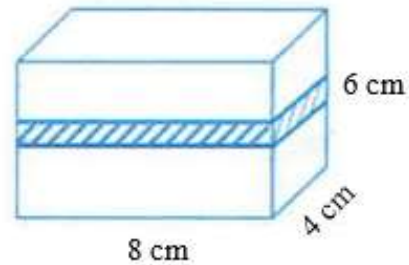
Box B

The ribbon is wrapped horizontally around the box

Given that both boxes have the same dimensions, which statement is correct?

A. The ribbon on Box A is longer than the ribbon on Box B.
B. The ribbon on Box B is longer than the ribbon on Box A.
C. The ribbon on both boxes are equal in length.
D. The answer cannot be determined by the information given.

Item Key: B

Item Number: 7

Item Type:	Single Select Multiple Choice

Cognitive Level: Medium

Item Description:	Students are required to use their knowledge of rounding to draw a conclusion based on the given number.

Kay estimated the number of people in a stadium to be 32,000. Which of the following numbers could **not** be the actual number of people in the stadium?

A. 32, 050
B. 32, 101
C. 32, 487
D. 32, 976

Item Key: D

Item Number: 8

Item Type:	Single Select Multiple Choice
Cognitive Level:	Medium
Item Description:	Students are required to use the information given in the table to compare the totals given.

The Tuck Shop sold 3 different types of snacks over a 3 week period. The table shows the quantity that was sold and the amount of money made. Use the information in the table to answer the question that follow.

Snack	Week 1		Week 2		Week 3	
	Quantity Sold	Amount ($)	Quantity Sold	Amount ($)	Quantity Sold	Amount ($)
Potato Chips	8	$320	20	$800	22	$880
Banana Chips	12	$240	14	$280	30	$300
Plantain Chips	5	$300	5	$300	5	$300

In which week did the Tuck Shop have the highest sales?

A. Week 1
B. Week 2
C. Week 3
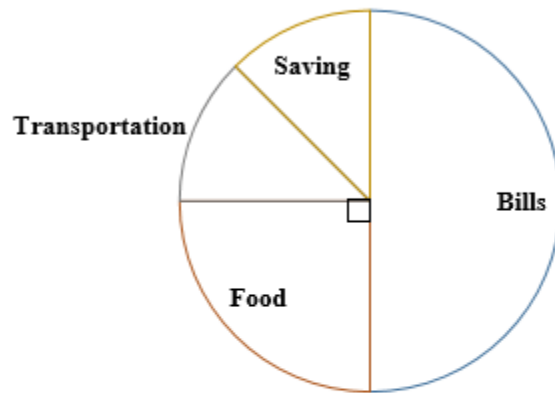D. The answer cannot be determined by the information given

Item Key: C

Item Number: 9

Item Type:	Single Select Multiple Choice

Cognitive Level:	Medium

Item Description:	Students are required to interpret the information given in the pie chart and to use it to answer the question given.

The diagram below shows how Paula spends her earnings in one month.

If Paula spent $8,000 on bills for the month, about how much money did she save?

    A. $16,000
    B. $4,000
    C. $2,000
    D. $1,000

Item Key: C

Item Number: 10

Item Type:	Single Select Multiple Choice
Cognitive Level:	High
Item Description:	Students are required to solve the problem using their knowledge of probability.

A bag has a certain number of red, blue and green marbles. Half of the marbles are red. There is the same number of blue marbles as there are green marbles. Which of the following could **not** be the number of marbles in the bag?

A.   32
B.   56
C.   77
D.   100

Item Key: C