sample

# Contents

*Primary 5*

## Shortcuts for Solving MC



## Revision



## Primary 5

### First Term



### Second Term

sample

# Substitution

When feeling clueless about a question, try substituting each option into the expression or situation in the question and find the option that matches what the question requires. This method is effective when there is no other way to find the correct answer.

## Example 1 Factors

If 9 is a common factor of 36 and ☆, which of the following numbers can be ☆?

A. 3 B. 29

C. 54 D. 181

Answer: _____

**Quick Approach**

Substitute each option into ☆ to check if it matches the requirement in the question.

Option A: 9 is not a factor of 3.

Option B: 9 is not a factor of 29.

Option C: 9 is a common factor of 36 and 54.

Option D: 9 is not a factor of 181.

## Example 2 Addition of fractions

If $\frac{M}{9} + \frac{N}{9} = \frac{2}{3}$, then $M + N = ?$

A. 1

B. 6

C. 9

D. 18

Answer: _____

**Quick Approach**

Write the expression as $\frac{M + N}{9}$, then substitute each option into the numerator.

Option A: $\frac{1}{9}$, not equal to $\frac{2}{3}$. ✗

Option B: $\frac{6}{9}$, equal to $\frac{2}{3}$. ✓

Option C: $\frac{9}{9}$, not equal to $\frac{2}{3}$. ✗

Option D: $\frac{18}{9}$, not equal to $\frac{2}{3}$. ✗

## Example 3 Perimeter

John used two ropes of the same length to make a square and a rectangle respectively. The side of the square is 15 cm. The width of the rectangle is 12 cm. What is the length of the rectangle?

A. 48 cm B. 36 cm

C. 30 cm D. 18 cm

Answer: _____

**Quick Approach**

The square and the rectangle have the same perimeter. Substitute each option to find the perimeter of the rectangle and see which one gives the same perimeter as the square.

The perimeter of the square is: $15 \times 4 = 60$ (cm)

Option A: $(48 + 12) \times 2 = 120$ (cm) ✗

Option B: $(36 + 12) \times 2 = 96$ (cm) ✗

Option C: $(30 + 12) \times 2 = 84$ (cm) ✗

Option D: $(18 + 12) \times 2 = 60$ (cm) ✓

sample

# Operations of whole numbers

P3 – P4

Date: _____

Score: _____ /22

## Keypoint Express

- When performing mixed operations, do the multiplication or division before the addition or subtraction. If there are brackets, do the calculation inside the brackets first.
- When performing mixed operations of multiplication and division, calculate step by step from left to right. If there is a remainder in the division on the left of the expression, multiply the dividend by the multiplier first.

**E.g.**

$450 + 7 \times (653 - 468)$ ← Do the calculation inside the brackets first.

$= 450 + 7 \times 185$ ← Do the multiplication before the addition.

$= 450 + 1295$

$= 1745$

**E.g.**

$42 \div 18 \times 6$ ← 42 is not divisible by 18. Rewrite the expression and do the multiplication before the division.

$= 42 \times 6 \div 18$

$= 252 \div 18$

$= 14$

## Section A

*Choose the correct answer. You only need to write down the letter preceding the selected answer. (Total 14 marks, 2 marks each)*

**1.** (2011) $99 \times 201 = ?$

A. $99 \times 200 + 1$

B. $100 \times 201 - 99$

C. $99 \times 200 + 99$

D. $100 \times 200 + 99$

( )

**2.** (2016) There are 28 students. Each student needs 4 pencils. If there are 5 dozen pencils, how many more pencils should be bought at least for the students?

A. 52

B. 107

C. 112

D. 172

( )

**3.** A ribbon of 86 cm long is cut every 15 cm. What is the length of ribbon left?

A. 4 cm

B. 5 cm

C. 6 cm

D. 11 cm

( )

**4.** (2013)

$$\begin{array}{r} \bigstar\ 0\ 5 \\ \times\quad 4\ \blacktriangle \\ \hline \end{array}$$

**Substitution and Elimination**

Substitute each option into ▲ and eliminate options that do not give an even number. Then substitute the remaining option into ★ to see which is the largest.

Which of the following options can make the above expression to be **largest** and **even**?

A. ★ = 1, ▲ = 4

B. ★ = 1, ▲ = 5

C. ★ = 2, ▲ = 4

D. ★ = 2, ▲ = 5

( )

Challenge

**5.** There are 122 cakes. They are packed into boxes of 4 . Each box is sold at $38. The cakes left are sold at $11 each. How much can be got by selling all cakes?

A. $1156

B. $1162

C. $1168

D. $1178

( )

sample

**6.** Challenge

| | Correct | Wrong | Abstain |
|---|---|---|---|
| Each question | Gain 10 points | Deduct 8 points | Deduct 5 points |

The above are the regulations of a quiz. Everyone needs to answer 15 questions. Jimmy answered 10 questions correctly and his final points were 69. How many question(s) did he answer wrongly?

A. 1
B. 2
C. 3
D. 5

**7.** Challenge


Mrs Lam buys 15 cakes for $180. How much cheaper is each cake than its original price?

A. $15
B. $12
C. $5
D. $3

Illustration
Express the number of cakes that Mrs Lam needs to pay by drawing.

## *Section B*

*Working steps must be shown in answering questions in this section unless specified otherwise.* *(Total 8 marks)*

**8.** Mr Lee wants to buy a tablet. The following are instalment plans provided by a shop.

| Plan | Payment Method | Discount |
|---|---|---|
| A | 18 instalments monthly instalment $344 | Pay half the money in the first, third and sixth instalments |
| B | 12 instalments monthly instalment $509 | No need to pay for the first instalment |

(a) If Mr Lee chooses Plan A, how much does he need to pay? 4 marks

(b) Which plan is cheaper? How much cheaper is it? (Give the answer only) 2 marks

Answer: Plan _____ is cheaper. It is $ _____ cheaper.

**9.** Challenge

A castle model sells at $525. If Leon saves a fixed amount of money every day from 17th June, he will have just enough savings to buy the model on 7th July. If he saves $8 more every day, when will he have enough savings to buy the model at the earliest? (Give the answer only) 2 marks

Answer: He will have enough savings at the earliest on _____.

Practice 3 **Area**



sample

Date: _____

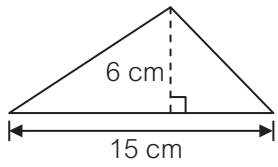
Score: _____ /48

## Keypoint Express

- Area of a parallelogram = Base × Height
- Area of a triangle = $\frac{\text{Base} \times \text{Height}}{2}$
- Area of a trapezium = $\frac{(\text{Upper base} + \text{Lower base}) \times \text{Height}}{2}$
- To find the area of a polygon, we can use the dissection method or filling method.

**E.g.** What is the area of the triangle on the right?

Answer: 45 $cm^2$ ← The base is 15 cm and height is 6 cm. $\frac{15 \times 6}{2} = 45$ The area is 45 $cm^2$.




## Section A

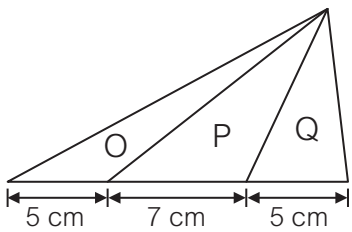
*Choose the correct answer. You only need to write down the letter preceding the selected answer.* *(Total 26 marks, 2 marks each)*

**1.** The base of a parallelogram is 16 cm, which is 4 cm longer than the height. What is the area of the parallelogram?

A. 64 $cm^2$
B. 96 $cm^2$
C. 192 $cm^2$
D. 320 $cm^2$

( )

**2.**




The above figure is formed by triangles O, P and Q. Which of the following is correct?

A. The area of O is the largest.
B. The area of P is the largest.
C. The area of Q is the largest.
D. The areas of O, P and Q are the same.

( )

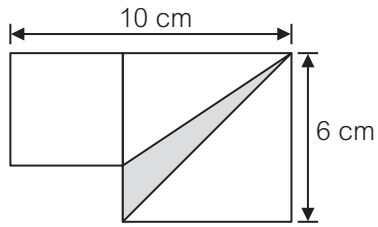
**3.** An isosceles triangle of largest area is cut out from a rectangle of length 20 cm and width 16 cm. What is the area of the triangle?

**Illustration** Draw a rectangle and consider how to cut out an isosceles triangle of largest area. Then deduce the base and height.

A. 80 $cm^2$
B. 128 $cm^2$
C. 160 $cm^2$
D. 320 $cm^2$

( )

**4.** 2017




The above figure is formed by two squares. What is the area of the shaded part?

A. 24 $cm^2$
B. 18 $cm^2$
C. 12 $cm^2$
D. 6 $cm^2$

( )

sample

**5.** The two slant sides of a trapezium are both 5 cm. The other sides are 6 cm and 12 cm respectively. The height is 1 cm shorter than the shortest side. What is the area of the trapezium?

A. 34 $cm^2$
B. 36 $cm^2$
C. 68 $cm^2$
D. 72 $cm^2$

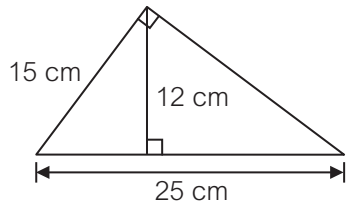
**Illustration**
Draw the trapezium and mark the lengths of all sides. Then calculate the area.

**6.** The base of a parallelogram is 12 m and the height is 6 m. If the base increases 2 m and the height decreases 2 m, how much does the area increase or decrease?

A. increases 8 $m^2$
B. decreases 8 $m^2$
C. increases 16 $m^2$
D. decreases 16 $m^2$

Challenge

**7.**




The above figure is a right-angled triangle. What is its perimeter?

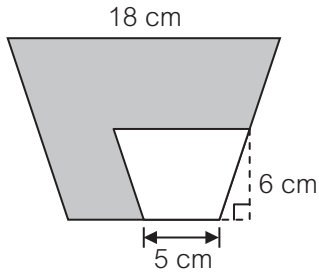
A. 46 cm
B. 50 cm
C. 60 cm
D. 80 cm

**8.** The base and height of a triangle increase 1 time respectively. How many times does its area increase?

A. 1
B. 2
C. 3
D. 4

**Assumption**
Assume values to the base and height of the triangle.

**9.** 2011




In the above figure, the upper base, lower base and height of the large trapezium are all 2 times of those of the small trapezium. What is the area of the shaded part?

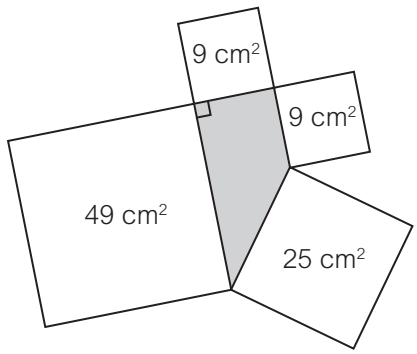
A. 42 $cm^2$
B. 126 $cm^2$
C. 168 $cm^2$
D. 210 $cm^2$

**10.** The area of a parallelogram is 180 $cm^2$. The base of the parallelogram is 3 cm longer than the height. What is the height of the parallelogram?

A. 10 cm
B. 12 cm
C. 15 cm
D. 18 cm

**Substitution**
Use each option to calculate the area of the parallelogram and see which gives 180 $cm^2$.

**11.** 2010

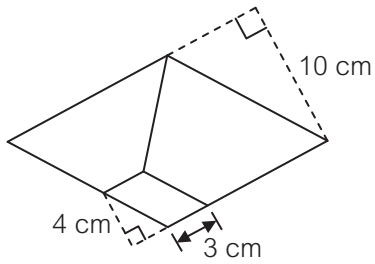



The above figure is formed by four squares and a trapezium. What is the area of the trapezium?

A. 15 $cm^2$
B. 25 $cm^2$
C. 30 $cm^2$
D. 36 $cm^2$

sample

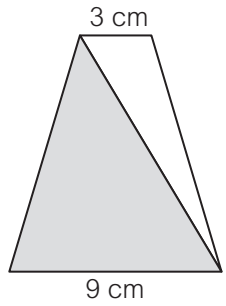
**12.** Challenge




The above figure is a rhombus of perimeter 48 cm. It is divided into a parallelogram and two trapeziums of different sizes. What is the area of the smaller trapezium?

A. 12 $cm^2$
B. 45 $cm^2$
C. 63 $cm^2$
D. 108 $cm^2$

**13.** Challenge



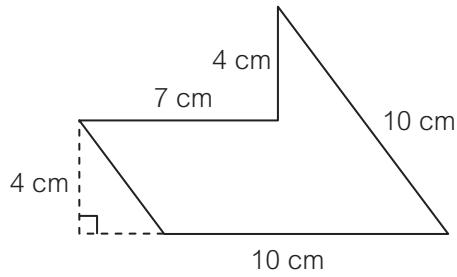

The above figure is a trapezium. The area of the white part is 30 $cm^2$ smaller than the shaded part. What is the area of the trapezium?

A. 60 $cm^2$
B. 75 $cm^2$
C. 90 $cm^2$
D. 120 $cm^2$

## *Section B*

*Working steps must be shown in answering questions in this section unless specified otherwise.* *(Total 22 marks)*

**14.** The figure below is a shape obtained by cutting out a trapezium from a rhombus.



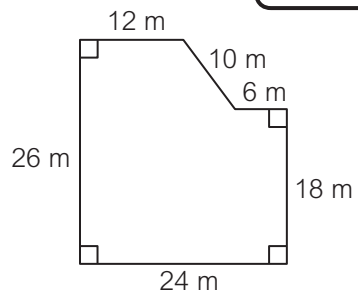

(a) What is the area of the shape? 4 marks

(b) What is the difference between the area of the trapezium cut out and that of the shape? (Give the answer only) 2 marks

Answer: The difference is _____. (Give your answer with a unit)

sample

**15.** The figure on the right is the layout of an exhibition hall.




(a) What is the area of the exhibition hall? 4 marks

(b) Workers divided the exhibition hall into two sections in the shape of a trapezium and a rectangle respectively. The rectangular section was paved with square tiles each of side 60 cm. How many tiles were used? (Give the answer only) 2 marks

Answer: _____ tiles were used.

(c) Last month, the exhibition hall hosted a model exhibition for one week. There were 545 visitors on the first day. Then on each of following days, there were 42 visitors more than the previous day. How many visitors were there on the last day? (Give the answer only) 2 marks

Answer: There were _____ visitors on the last day.

**16.** 2014 Figure 1 is a parallelogram. It is cut along the dotted line into three shapes. These three shapes are then put together to form a trapezium, as shown in Figure 2.

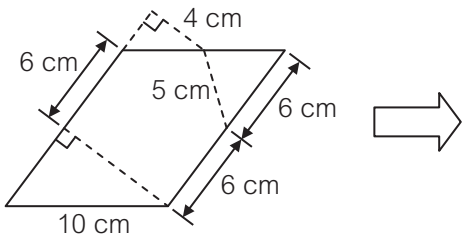



Figure 1

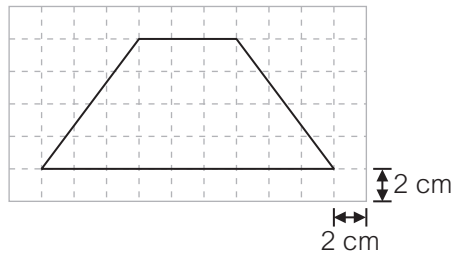



Figure 2

(a) What is the area of the trapezium? 4 marks

(b) Draw straight lines on Figure 2 to show how these three shapes are put together to form the trapezium. 2 marks

(c) What is the perimeter of the trapezium? (Give the answer only) 2 marks

Answer: The perimeter of the trapezium is _____.

(Give your answer with a unit)

sample

Time: 25 mins

Date: _____

Score: _____ /50

## Section A (30 marks)

*Choose the correct answer. You only need to write down the letter preceding the selected answer. (2 marks each)*

**1.** The first multiple of $P$ is $P$. If the sum of the first four multiples of $P$ is 550, what is $P$?

A. 10
B. 55
C. 110
D. 220

**2.** Which of the following numbers has the hundred thousands digit '9' and the tens digit '2'?

A. 198 720
B. 896 302
C. 986 271
D. 936 827

**3.**

| Tea Leaves | Stocks |
|---|---|
| Pu'er | 48 kg |
| Longjing | 51 kg |
| Oolong | $50\frac{1}{2}$ kg |

The tea shop packed the Oolong tea leaves into packs of $\frac{1}{40}$ kg each. Every 20 packs are packed into a box. How many boxes of Oolong tea can be packed?

A. 96
B. 100
C. 101
D. 102

**4.** A scarf sells at \$95.5. It is \$26.8 more expensive than a pair of gloves. How much should be paid in total for a scarf and a pair of gloves?

A. \$68.7
B. \$122.3
C. \$164.2
D. \$217.8

**5.**

Sports Centre Court Rental Service
Squash court
(per 30 minutes) \$43.9
*Starting on the hour and half past every hour.

Eric and his friends played squash from 14：40 to 16：10. How much did they pay at least for the rent?

A. \$87.8
B. \$131.7
C. \$175.6
D. \$219.5

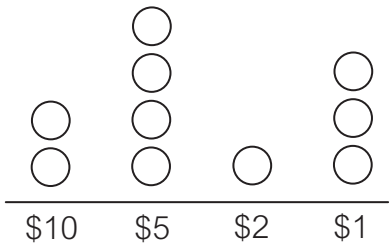
**6.** There are 60 teachers in a school. $\frac{1}{5}$ of them are English teachers, and half of the English teachers are females. How many female English teachers are there in the school?

A. 6
B. 12
C. 24
D. 30

sample

**13.** The Savings of Mia

Each ○ stands for 10 coins




There were only coins in Mia's savings. After spending some savings on a bag of crisps that was sold at $13, how much savings were left?

A. $32
B. $87
C. $437
D. $450

**14.** Nancy used $168 to buy $n$ packs of dumplings that sold at $42 each. Which of the following equations should be used to find the number of packs of dumplings that Nancy bought?

A. $42 + n = 168$
B. $\frac{n}{42} = 168$
C. $42n = 168$
D. $n - 42 = 168$

**15.** If $y - 6 = 18$, then $4y = ?$

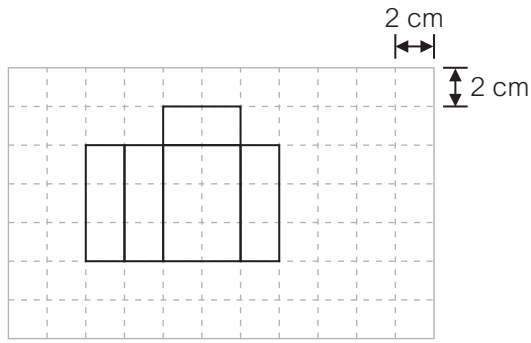
A. 6
B. 24
C. 48
D. 96

**End of Section A**

## *Section B (20 marks)*

*Working steps must be shown in answering questions in this section unless specified otherwise.*

**16.**




(a) Karen drew the net of a cuboid on the above graph paper but did not finish. Draw the necessary figures to complete the net. 2 marks

(b) Karen cut out the net from the graph paper. What was the volume of the cuboid formed by the net? 4 marks

sample

# Hong Kong Attainment Test
# 香港學科測驗

## （Pre-Secondary 1　中一入學前）

# Mathematics
# 數學

## Mock Paper　模擬試卷

Time allowed for the test: 50 minutes
測驗時間：50分鐘

**Instructions:**

1. This test contains two sections:
   Section A: Questions 1 – 30
   Section B: Questions 31 – 36
2. Answer ALL questions.
3. Write your answers on the answer sheet.
4. Write your Name, Class and Class Number on the answer sheet.
5. You may do your rough work in the blank space of this test booklet and there is no need to rub it out after the test.
6. The use of calculator is not allowed.

**學生須知：**

1. 本測驗卷共有兩部分：
   甲部：第 1 至第 30 題
   乙部：第 31 至第 36 題
2. 全部題目均須作答。
3. 把答案寫在答題紙上。
4. 在答題紙上填寫姓名、班別及班號。
5. 學生可利用本測驗卷的空白部分做算草，測驗完畢後無須將算草擦去。
6. 不准使用計算機。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sample

**Note:**

Not all diagrams are drawn to scale.

注意：

部分附圖不依比例繪畫。

## Section A (60 marks)

## 甲部（60 分）

Choose the correct answer. You only need to write down the letter preceding the selected answer.

選出正確的答案。學生只須填上所選答案前的英文字母。

1. What is the number to be added to 992 517 to make it the smallest 7-digit number?

   A. 7583
   B. 7483
   C. 7482
   D. 7473

1. 992 517 要加上多少才是最小的七位數？

   A. 7583
   B. 7483
   C. 7482
   D. 7473

2. How many times of $2 \times 33 \times 18$ is $4 \times 12 \times 99$?

   A. 2
   B. 3
   C. 4
   D. 6

2. $4 \times 12 \times 99$ 是 $2 \times 33 \times 18$ 的多少倍？

   A. 2
   B. 3
   C. 4
   D. 6

sample

## Section B (40 marks)

Working steps must be shown in answering questions in this section unless specified otherwise.

## 乙部（40 分）

除特別指明外，在回答本部問題時，須列出計算步驟。

31. A fruit juice shop bought 240 apples and 48 watermelons. The number of oranges bought by the fruit juice shop is $\frac{3}{8}$ of the total number of apples and watermelons.

(a) How many oranges did the fruit juice shop buy? (Give the answer only)

[2 marks]

(b) 5 oranges are squeezed to make a bottle of orange juice. How many completely filled bottles of orange juice can be made, if $\frac{3}{4}$ of the oranges bought by the fruit juice shop are squeezed?

[4 marks]

31. 果汁店購買了蘋果 240 個和西瓜 48 個，購得的橙的數量是蘋果和西瓜總數的 $\frac{3}{8}$。

(a) 果汁店購買了橙多少個？（只須寫出答案）

[2 分]

(b) 5 個橙可榨滿橙汁一瓶，把果汁店購得的橙的 $\frac{3}{4}$ 都榨成橙汁，共可榨滿橙汁多少瓶？

[4 分]

32. A bakery used 36 kg of flour this morning, which was three times more than the amount used in the afternoon. How much flour did the bakery use in the afternoon? (Use equation to solve the problem and show your working)

[4 marks]

32. 餅店上午用去麵粉 36 kg，比下午用去的多 3 倍。餅店下午用去麵粉多少？（須用方程列式計算）

[4 分]

sample

# Hong Kong Attainment Test
# 香港學科測驗

## Pre-Secondary 1 Mathematics
## 中一入學前數學科

## Mock Paper　模擬試卷

**Answer Sheet　答題紙**

Name
姓名：_____ (English) _____ (中文)

Class
班別：_____

Class No.
班號：_____

| Total Marks 總分 | |
|---|---|

**Section A** (60 marks) You only need to write down the letter preceding the selected answer. (2 marks each)

**甲部**（60 分） 學生只須填上所選答案前的英文字母。（每題 2 分）

| | | | | | |
|---|---|---|---|---|---|
| 1. | 6. | 11. | 16. | 21. | 26. |
| 2. | 7. | 12. | 17. | 22. | 27. |
| 3. | 8. | 13. | 18. | 23. | 28. |
| 4. | 9. | 14. | 19. | 24. | 29. |
| 5. | 10. | 15. | 20. | 25. | 30. |


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sample

## Section B (40 marks)

Working steps must be shown in answering questions in this section unless specified otherwise.

Teacher's use only
供教師專用

## 乙部（40 分）

除特別指明外，在回答本部問題時，須列出計算步驟。

| | | Marks 佔分 | |
|---|---|---|---|
| 31 (a). | The fruit juice shop bought _____ oranges.<br>果汁店購買了橙 _____ 個。 | 2 | |
| 31 (b). | | 4 | |
| 32. | | 4 | |
| 33 (a). | It is to the _____ of the Memory Booth.<br>它是在記憶攤位的 _____ 方。 | 2 | |

**Go On To Next Page**
**轉下頁續答**