

HONG KONG ATTAINMENT TEST

香港學科測驗

Pre-Secondary One

中一入學前

Mathematics

數學

Mock Paper 4

模擬試卷(四)

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. 在答題紙上填寫學生姓名、班別及學號。
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。



CLASSROOM Pre-Secondary One Mathematics Mock Papers (P.5)

課室中一入學前數學科模擬試卷(小五)



Note:

Not all diagrams are drawn to scale.

注意：

部分附圖不依比例繪畫。

SECTION A (60 marks)

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

甲部 (60分)

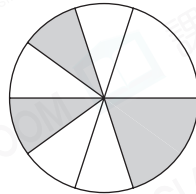
選出正確的答案。學生只須填上所選答案前的英文字母。

1. The eighth common multiple of two numbers is 144. Which of the following groups of numbers may be these two numbers?

- A. 2, 9
- B. 6, 8
- C. 4, 18
- D. 9, 16

1. 兩個數的第八個公倍數是144。以下哪一組數可能是這兩個數？

- A. 2、9
- B. 6、8
- C. 4、18
- D. 9、16



2. What fraction of the above figure is white?

- A. $\frac{3}{8}$
- B. $\frac{2}{5}$
- C. $\frac{1}{2}$
- D. $\frac{3}{5}$

2. 白色部分佔上圖的幾分之幾？

- A. $\frac{3}{8}$
- B. $\frac{2}{5}$
- C. $\frac{1}{2}$
- D. $\frac{3}{5}$

3. The price of car P is \$3 032 741, which was half of that of car Q. What is the price of car Q when corrected to the nearest hundred thousand?

- A. \$3 000 000
- B. \$6 000 000
- C. \$6 070 000
- D. \$6 100 000

3. 汽車P的售價是\$3 032 741，恰好是汽車Q的售價的一半。汽車Q的售價，如準確至十萬元，應是多少？

- A. \$3 000 000
- B. \$6 000 000
- C. \$6 070 000
- D. \$6 100 000

4. 1, 4, 7 are used to form the smallest 3-digit number which is a multiple of 6. Each number should not be used repeatedly. What is the H.C.F. of this 3-digit number and 90?

- A. 12
- B. 6
- C. 3
- D. 2

4. 用1、4、7組成一個最小的三位數，且該數是6的倍數，每個數字不可重複使用。該三位數和90的H.C.F.是多少？

- A. 12
- B. 6
- C. 3
- D. 2

5. $\boxed{8} \boxed{2} \boxed{\triangle}$ is a 3-digit number. When it is divided by 19, the remainder is 10. Which of the following is $\boxed{\triangle}$?

- A. $\boxed{0}$
- B. $\boxed{2}$
- C. $\boxed{5}$
- D. $\boxed{7}$

5. $\boxed{8} \boxed{2} \boxed{\triangle}$ 是一個三位數。當它除以19，餘數是10。下列哪個是 $\boxed{\triangle}$ ？

- A. $\boxed{0}$
- B. $\boxed{2}$
- C. $\boxed{5}$
- D. $\boxed{7}$

6. There were $7\frac{1}{4}$ L of paint in a tin. My father used $2\frac{1}{2}$ L. How much more should he use in order to reduce the paint in the tin to half of the original amount?

- A. $1\frac{1}{8}$ L
- B. $1\frac{1}{4}$ L
- C. $1\frac{5}{8}$ L
- D. $2\frac{3}{4}$ L

6. 一罐油漆原有 $7\frac{1}{4}$ L，爸爸用了 $2\frac{1}{2}$ L。他應再用多少，才能使油漆減至原來的一半？

- A. $1\frac{1}{8}$ L
- B. $1\frac{1}{4}$ L
- C. $1\frac{5}{8}$ L
- D. $2\frac{3}{4}$ L

Happy Toy Store

歡樂玩具店

Puzzles (each box)
拼圖 (每盒)

\$56 $\frac{1}{2}$

Buy one box and get one extra balloon.

每購買一盒，多送一個氣球。

7. Customers can get one balloon by every spending of \$50 in Happy Toy Store. Eve bought 4 boxes of puzzles, how many balloons did she get altogether?

- A. 4
- B. 5
- C. 8
- D. 10

7. 在歡樂玩具店，顧客每消費滿 \$50 可獲得一個氣球。娜娜買了 4 盒拼圖，她共得氣球多少個？

- A. 4
- B. 5
- C. 8
- D. 10

8. Simon bought some sausages and steak. The steak weighed $2\frac{1}{5}$ kg. The sausages weighed $\frac{1}{4}$ kg less than the steak. What was the total weight of the food that Simon bought?

- A. $4\frac{13}{20}$ kg
- B. $4\frac{3}{20}$ kg
- C. $3\frac{17}{20}$ kg
- D. $2\frac{9}{20}$ kg

8. 東旭買了一些香腸和牛扒，牛扒重 $2\frac{1}{5}$ kg，而香腸比牛扒輕 $\frac{1}{4}$ kg，東旭購買的食物共重多少？

- A. $4\frac{13}{20}$ kg
- B. $4\frac{3}{20}$ kg
- C. $3\frac{17}{20}$ kg
- D. $2\frac{9}{20}$ kg

9. How many ' $1\frac{5}{8}$'s should be added together to make the sum of 52?

- A. 2
- B. 4
- C. 16
- D. 32

9. 多少個「 $1\frac{5}{8}$ 」相加後的總和是 52？

- A. 2
- B. 4
- C. 16
- D. 32

10. A toy car cost \$89.8 originally. David bought a toy car. When he was paying the bill with a \$100 note, the cashier told him that the toy car was on sale and gave him \$23.3 change. How much was the toy car cheaper?

- A. \$76.7
- B. \$21.5
- C. \$13.1
- D. \$10.2

10. 一輛玩具車原價是 \$89.8。志揚買了一輛玩具車，並以一張 \$100 紙幣付款。收銀員告訴他玩具車正以特價發售，因此找回 \$23.3 給他。玩具車的售價比原價便宜了多少？

- A. \$76.7
- B. \$21.5
- C. \$13.1
- D. \$10.2

11. A box of 12 plates sells for \$540. The average price of each plate is higher than that of each bowl by \$2. To buy three dozen bowls, how much should be paid?

- A. \$516
- B. \$564
- C. \$1548
- D. \$1692

11. 一盒盤子有12個，售價是\$540。每個盤子的平均售價較每個碗的貴\$2。買三打碗須付款多少？

- A. \$516
- B. \$564
- C. \$1548
- D. \$1692

12. Last week, Parco worked 4 days in a store and each day he worked from 6:00 a.m. to 2:00 p.m. If the wage for working in the store was \$42.6 for an hour, how much did Parco earn last week?

- A. \$1704
- B. \$1363.2
- C. \$681.6
- D. \$170.4

12. 柏文上星期在便利店工作4天，每天由6:00 a.m.工作至2:00 p.m.。如果在便利店工作每小時的薪金是\$42.6，柏文上星期獲得薪金多少？

- A. \$1704
- B. \$1363.2
- C. \$681.6
- D. \$170.4

13. Sam had \$28.6, and his mother gave him \$50.5. After he bought a bag of candies which cost \$31.8, how much was left?

- A. \$3.2
- B. \$18.7
- C. \$28.6
- D. \$47.3

13. 小志原來有\$28.6，媽媽再給他\$50.5。他買了一袋價值\$31.8的糖果後，還有多少？

- A. \$3.2
- B. \$18.7
- C. \$28.6
- D. \$47.3

14. A roll of ribbon is $18\frac{3}{10}$ m long.
How many pieces of short ribbon of length $1\frac{1}{2}$ m can be cut at most?

- A. 14
- B. 13
- C. 12
- D. 11

14. 一卷長 $18\frac{3}{10}$ m 的絲帶，最多可剪成多少條長 $1\frac{1}{2}$ m 的小絲帶？

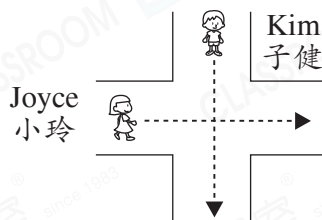
- A. 14
- B. 13
- C. 12
- D. 11

15. Which of the following figures can be formed by three right-angled triangles of the same size and same shape?

- A. square
- B. rectangle
- C. trapezium
- D. parallelogram

15. 用三個大小和形狀相同的直角三角形能拼砌出下列哪個圖形？

- A. 正方形
- B. 長方形
- C. 梯形
- D. 平行四邊形



16. In the above figure, Kim was walking along the path in the northeast direction. When he reached the crossroads, Joyce was coming from his right. In which direction was Joyce heading?

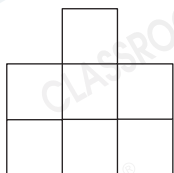
- A. northeast
- B. northwest
- C. southwest
- D. southeast

16. 上圖中，子健正沿小徑向東北方走，到了路口時，小玲從他的右面走來。小玲正向哪個方向走？

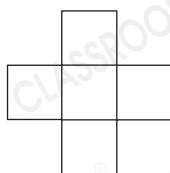
- A. 東北
- B. 西北
- C. 西南
- D. 東南

17. Which of the following nets can be folded to form a cube?

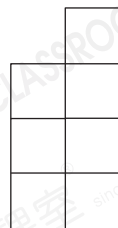
A.



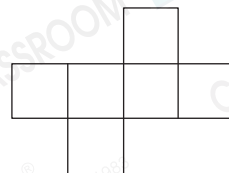
B.



C.



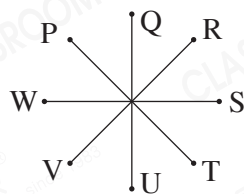
D.



17. 下列哪一個摺紙圖樣可摺成一個正方體？

18. If W is northwest of S, what direction is Q from U?

- A. southeast
- B. northeast
- C. southwest
- D. northwest

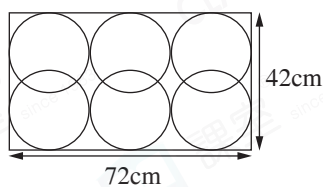


18. 如果W在S的西北方，Q在U的哪一方？

- A. 東南
- B. 東北
- C. 西南
- D. 西北

19. There are 6 circles of the same size inside the rectangle. What is the radius of each circle?

- A. 12cm
- B. 14cm
- C. 24cm
- D. 28cm



19. 長方形內有6個大小相同的圓，每個圓的半徑是多少？

- A. 12cm
- B. 14cm
- C. 24cm
- D. 28cm

20. A piece of rectangular paper is cut into a right-angled isosceles triangle and a quadrilateral. Which kind of quadrilateral can be obtained?

- A. rectangle
- B. parallelogram
- C. square
- D. trapezium

20. 把一張長方形手工紙剪成一個等腰直角三角形和一個四邊形，可以得到哪種四邊形？

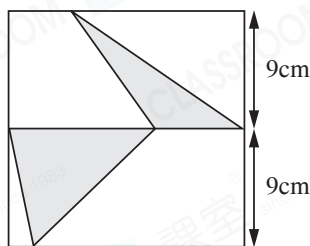
- A. 長方形
- B. 平行四邊形
- C. 正方形
- D. 梯形

21. The perimeter of a rectangle is 40cm. If the length is 4 times the width, what is the area of the rectangle?

- A. 16cm^2
- B. 32cm^2
- C. 64cm^2
- D. 100cm^2

21. 一個長方形的周界是40cm。如果長度是闊度的4倍，這個長方形的面積是多少？

- A. 16cm^2
- B. 32cm^2
- C. 64cm^2
- D. 100cm^2



22. In the above square, what is the area of the shaded part?

- A. 45cm^2
- B. 81cm^2
- C. 162cm^2
- D. 324cm^2

22. 在上圖的正方形中，陰影部分的面積是多少？

- A. 45cm^2
- B. 81cm^2
- C. 162cm^2
- D. 324cm^2

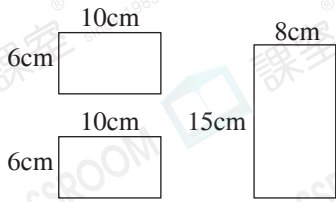


Figure 1
圖一

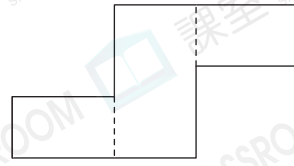


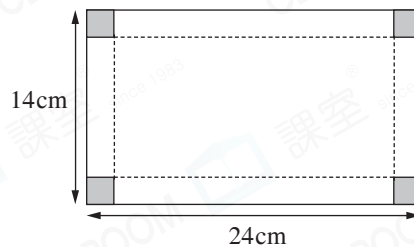
Figure 2
圖二

23. Figure 2 is formed by fitting the three rectangles shown in Figure 1. What is its perimeter?

- A. 80cm
- B. 82cm
- C. 86cm
- D. 88cm

23. 圖二是由圖一所示的三個長方形拼砌而成，它的周界是多少？

- A. 80cm
- B. 82cm
- C. 86cm
- D. 88cm

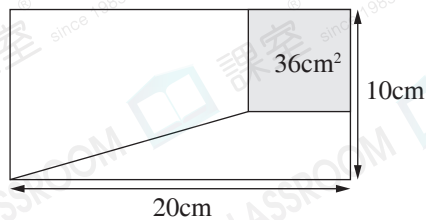


24. A piece of rectangular cardboard is 24cm long and 14cm wide. A square of side 2cm is cut out from each of the four corners of the cardboard, as shown above. If the cardboard is folded along the dotted lines to make a box without a lid, what is the volume of the box?

- A. 264cm^3
- B. 400cm^3
- C. 552cm^3
- D. 560cm^3

24. 長方形卡紙長24cm，闊14cm。在卡紙的四角，各剪去一個邊長2cm的正方形，如上圖所示。如果將卡紙依虛線摺起，製作成一個無蓋的盒子，那麼盒子的體積是多少？

- A. 264cm^3
- B. 400cm^3
- C. 552cm^3
- D. 560cm^3



25. The above figure is formed by a square and two trapeziums. If the area of the square is 36cm^2 , what is the difference between the areas of the two trapeziums?

- A. 40cm^2 B. 60cm^2

25. 上圖是由一個正方形和兩個梯形組成。如果正方形的面積是 36cm^2 ，兩個梯形的面積相差多少？

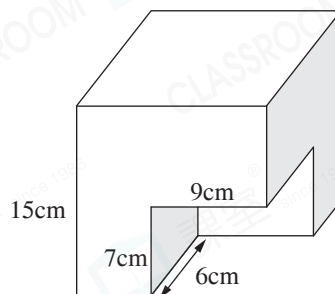
- C. 82cm^2 D. 112cm^2

26. A cuboid is 12cm long, 6cm wide and 8cm high. To get the largest cube, how much should we cut off from the cuboid?

- A. 64cm^3 B. 158cm^3

26. 一個長方體的長是 12cm，闊是 6cm，高是 8cm。最少要從這個長方體中切去多少才能得到一個最大的正方體？

- C. 360cm^3 D. 512cm^3



27. The above figure shows the remaining part of a cube with a cuboid cut out. What is the volume of this solid?

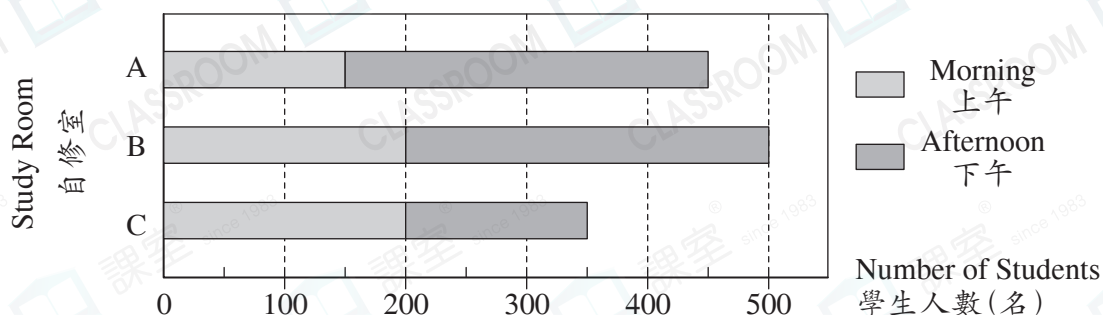
- A. 378cm^3
 B. 630cm^3
 C. 2997cm^3
 D. 3375cm^3

27. 上圖的立體是由一個正方體切去一個長方體後餘下的部分，這立體的體積是多少？

- A. 378cm^3
 B. 630cm^3
 C. 2997cm^3
 D. 3375cm^3

Number of Students in Three Study Rooms Yesterday

昨天三個自修室的學生人數



28. According to the above graph, how many more students were there in the afternoon than in the morning?

- A. 200
- B. 250
- C. 300
- D. 750

28. 根據上圖，下午的學生人數比上午多幾名？

- A. 200
- B. 250
- C. 300
- D. 750

29. If $3N - 8 = 76$, then $N = ?$

- A. 252
- B. 228
- C. 84
- D. 28

29. 如果 $3N - 8 = 76$ ，那麼 $N = ?$

- A. 252
- B. 228
- C. 84
- D. 28

30. If $\frac{a}{7} + 10 = 11$, then $8a = ?$

- A. 7
- B. 27
- C. 56
- D. 216

30. 如果 $\frac{a}{7} + 10 = 11$ ，那麼 $8a = ?$

- A. 7
- B. 27
- C. 56
- D. 216

End of Section A

甲部完

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。

Fantasy Park 奇幻樂園

The standard price of each token is \$7. Members can enjoy the following offers:
每個代幣正價是\$7，會員可享有以下優惠：

Offer 1 優惠一	\$60 for 10 tokens 以\$60換10個代幣
Offer 2 優惠二	\$90 for 20 tokens 以\$90換20個代幣

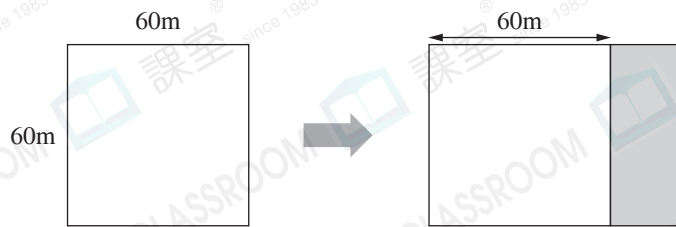
3 tokens are needed to play each round of gacha game.
每次扭蛋需要3個代幣。

31. (a) Wayne spent \$154 to buy some tokens at the standard price. How many rounds of gacha games could he play at most and how many tokens were left? [4 marks]

(b) If Andrew is a member of Fantasy Park, can he play 12 rounds of gacha games with \$180? Explain. [3 marks]

31. (a) 華昌花了\$154以正價購買代幣，他最多可扭蛋多少次及餘下代幣多少個？ [4分]

(b) 如果建良是奇幻樂園的會員，他能否以\$180玩12次扭蛋？試解釋。 [3分]



32. One end of a square lawn was extended to $\frac{5}{12}$ of the length of the original side, a rectangular lawn could be formed, as shown above. What was the area of the rectangular lawn?

[4 marks]

32. 把一塊正方形草地一邊擴展原來邊長的 $\frac{5}{12}$ 長度，便成為一塊長方形草地，如上圖所示。長方形草地的面積是多少？ [4分]

33. (a) There are 135 students on the playground, $\frac{7}{9}$ of them are girls. How many students are boys?

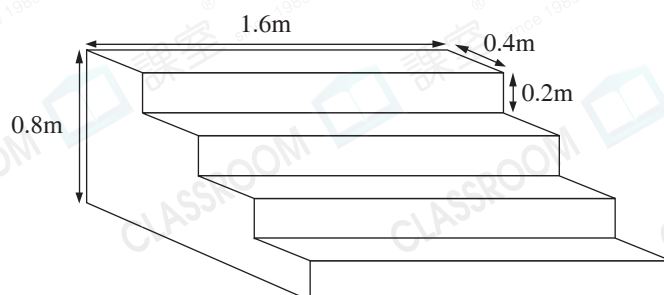
[4 marks]

33. (a) 操場上共有學生 135 人，其中 $\frac{7}{9}$ 是女生，男生有多少人？ [4分]

(b) There is a stand on the playground, as shown below. Each step of the stand has the same width and same height. What is the volume of the stand?

[4 marks]

(b) 操場上有一個台階，如下圖所示。台階上每級的闊度相等，高度亦相同。這個台階的體積是多少？ [4分]



	Baking Class 烘焙班	Pottery Class 陶藝班
Course fee 全期學費	\$4620	Special price 特價
Number of periods 堂數	20	10
Duration of each period (hour) 每堂時間(小時)	2	$1\frac{1}{2}$
Fee for renting utensil (whole course) 用具租借費(全期)	\$500	—

34. (a) If Amy enrolls for the baking class and rents the utensil, what is the average fee per hour for the baking class? [4 marks]

(b) Three times the course fee for the pottery class is \$600 less than the course fee for the baking class. What is the course fee for the pottery class? (Use equation to solve the problem and show your working) [4 marks]

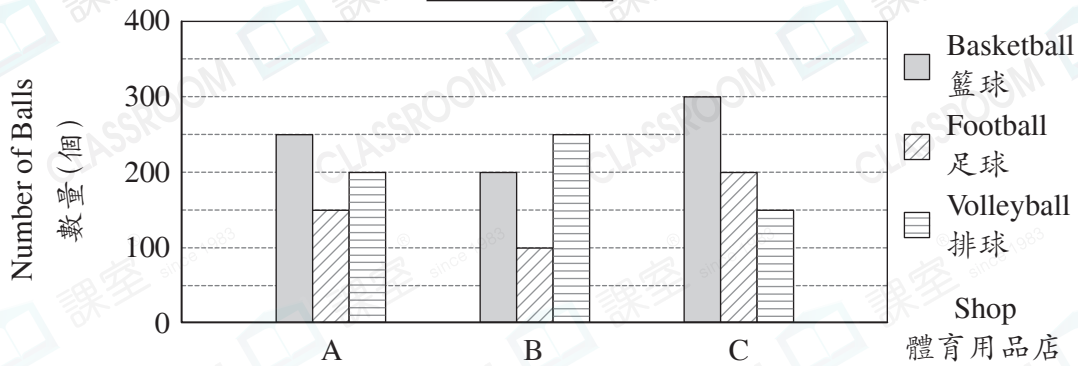
34. (a) 如果琪菲報讀烘焙班並租用了用具，烘焙班平均每小時收費多少？ [4分]

(b) 陶藝班全期學費的3倍比烘焙班全期學費少\$600。陶藝班全期學費是多少？(須用方程列式計算，並展示步驟) [4分]

35. Raymond spent \$800 for an overnight camp. $\frac{1}{10}$ of the expenses was on transport. $\frac{3}{4}$ of the remaining expenses was on lodging. How much did he pay for lodging? [4 marks]

35. 偉君去宿營花費了\$800，其中交通費佔了 $\frac{1}{10}$ ，剩下的 $\frac{3}{4}$ 是住宿費用。他所付的住宿費用是多少？ [4分]

Sales of Balls
球類的銷量



36. The above chart shows the sales of balls in three shops last month.

- (a) Among the three shops, which shop sold the greatest number of balls? How many balls were sold altogether? (Give the answer only) [2 marks]

(b) The table below shows the prices of balls.

	Basketball 籃球	Football 足球	Volleyball 排球
Price (each ball) 售價 (每個)	\$120	\$186	\$68

How much did Shop B get from selling balls last month? [4 marks]

- (c) Last month, Shop D sold 150 basketballs, 250 footballs and 100 volleyballs. Draw the bars representing the sales of Shop D on the answer sheet. [3 marks]

36. 上圖是三間體育用品店上月球類的銷量。

- (a) 在三間體育用品店中，哪一間售出球的數量最多？共售出多少個？（只須寫出答案） [2分]

(b) 下表是這三種球類的售價。

B店上月售出三種球類的總收入是多少？ [4分]

- (c) D店上月售出了150個籃球、250個足球和100個排球。在答題紙上，畫出代表D店銷量的棒。 [3分]