

**PAYA LEBAR METHODIST GIRLS' SCHOOL (PRIMARY)**

**PRELIMINARY EXAMINATION, 2009**

**PRIMARY SIX**

**MATHEMATICS  
PAPER 1  
(BOOKLET A)**

NAME : \_\_\_\_\_ ( )

CLASS : P 6

DATE : 25 August 2009

Total Time for Booklets A and B : 50 min

**INSTRUCTIONS TO CANDIDATES**

1. Do not turn over this page until you are told to do so.
2. Follow all the instructions carefully.
3. Answer all questions.
4. Shade your answers in the Optical Answer Sheet (OAS) provided.
5. You are not allowed to use a calculator.

	Marks Obtained	Maximum Marks
BOOKLET A	/	20
BOOKLET B	/	20
TOTAL	/	40

Questions 1 to 10 carry 1 mark each. Questions 11 to 15 carry 2 marks each.

For each question, four options are given. One of them is the correct answer.

Make your choice (1, 2, 3 or 4). Shade the correct oval (1, 2, 3 or 4) on the Optical Answer Sheet. (20 marks)

1. Which of the following is five million, four thousand and seventy-one?

- (1) 54 071
- (2) 504 071
- (3) 5 004 071
- (4) 5 040 071

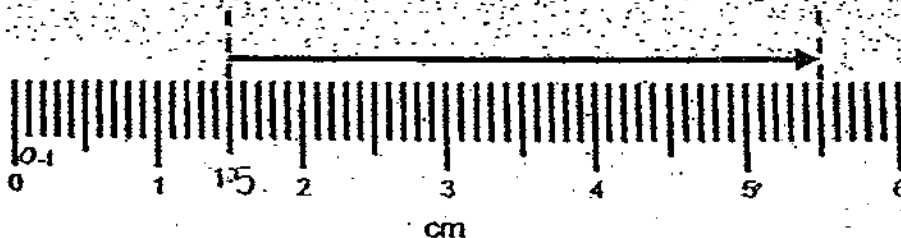
2. Which of the following decimals is the biggest?

- (1) 0.09
- (2) 0.71
- (3) 0.509
- (4) 0.089

3. Express  $\frac{4}{25}$  kg in grams.

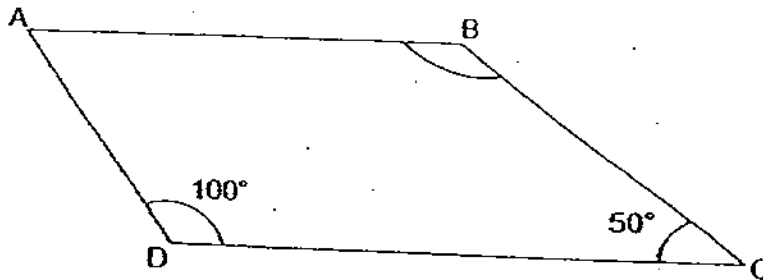
- (1) 400 g
- (2) 160 g
- (3) 40 g
- (4) 16 g

4. What is the length of the arrow shown in the diagram below?



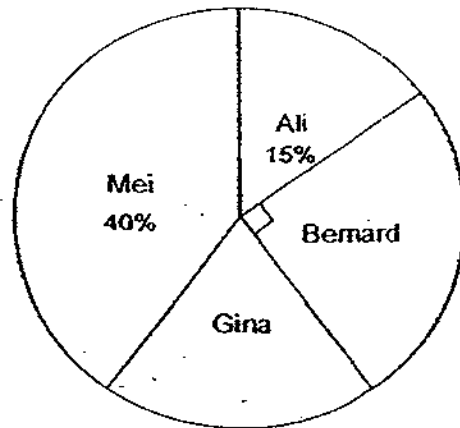
- (1) 4.5 cm
- (2) 5.5 cm
- (3) 5 cm
- (4) 4cm

5. The diagram below shows a trapezium, ABCD, not drawn to scale.  
Calculate  $\angle ABC$ .



- (1)  $80^\circ$   
 (2)  $100^\circ$   
 (3)  $130^\circ$   
 (4)  $150^\circ$
6. For every 3 peanut cookies Mrs Lim baked, she would bake 5 coconut cookies. How many peanut cookies would Mrs Lim bake if she baked 150 coconut cookies?
- (1) 90  
 (2) 250  
 (3) 300  
 (4) 450
7. At 0900, Mr Wang left Village A and travelled towards Village B at an average speed of 60km/h. The distance between the two villages was 270km.  
At what time did Mr Wang reach Village B?
- (1) 0130  
 (2) 0430  
 (3) 1130  
 (4) 1330

The pie chart below, not drawn to scale, shows the number of votes received by four pupils, Ali, Bernard, Gina, and Mei, in a contest. Study the pie chart carefully and answer Questions 8 and 9.



8. What fraction of the total number of votes did Mei receive?
- (1)  $\frac{2}{5}$
  - (2)  $\frac{1}{3}$
  - (3)  $\frac{1}{5}$
  - (4)  $\frac{3}{20}$
9. If Bernard received 60 votes, how many votes did the rest of the three contestants receive altogether?
- (1) 240
  - (2) 180
  - (3) 120
  - (4) 100
10. Simplify  $4b - 3 + 2b + 9$ .
- (1)  $6b - 12$
  - (2)  $6b + 12$
  - (3)  $6b - 6$
  - (4)  $6b + 6$

11. Muthu and Devi had  $\$n$  altogether. After Muthu gave  $\$12$  to Devi, each of them had the same amount of money. How much did Devi have at first?

(1)  $\$(\frac{n-12}{2})$

(2)  $\$(\frac{n-24}{2})$

(3)  $\$(n-12)$

(4)  $\$(n-24)$

12. Sharon paid  $\$120$  for a dress after a 20% discount was given. How much was the discount?

(1)  $\$100$

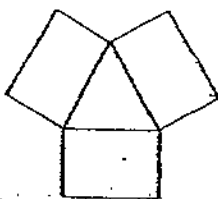
(2)  $\$96$

(3)  $\$30$

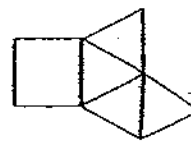
(4)  $\$24$

13. Which of the following cannot form a pyramid?

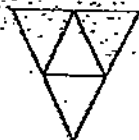
(1)



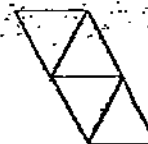
(2)



(3)



(4)





**PAYA LEBAR METHODIST GIRLS' SCHOOL (PRIMARY)**  
**PRELIMINARY EXAMINATION, 2009**

**PRIMARY SIX**

**MATHEMATICS**  
**PAPER 1**  
**(BOOKLET B)**

NAME \_\_\_\_\_ ( )

CLASS : P 6 \_\_\_\_\_

DATE : 25 August 2009

Total Time for Booklets A and B : 50 min

**INSTRUCTIONS TO CANDIDATES**

1. Do not turn over this page until you are told to do so.
2. Follow all the instructions carefully.
3. Answer all questions.
4. Write your answers in this booklet.
5. You are not allowed to use a calculator.

	Marks Obtained	/	Maximum Marks
BOOKLET B		/	20

Questions 16 to 25 carry 1 mark each. Write your answers in the spaces provided.  
For questions which require units, give your answers in the units stated. (10 marks)

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16. Find the value of  $\frac{4}{5} + \frac{2}{3}$ .

Express your answer as a mixed number.

Answer: \_\_\_\_\_

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17. Find the value of  $13.06 \times 15$ .

Answer: \_\_\_\_\_

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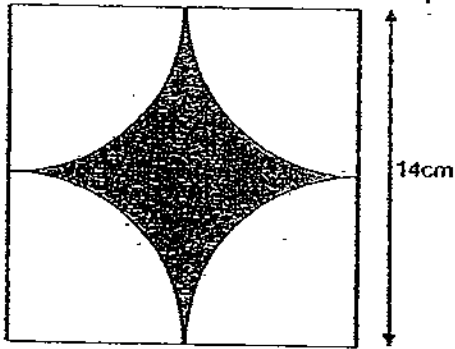
18. Evaluate  $20 + 24 \div 2 \times 4$ .

Answer: \_\_\_\_\_

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19. The figure below, not drawn to scale, is made up of 4 identical quadrants drawn within a square of side 14cm. Find the perimeter of the shaded part. (Take  $\pi = \frac{22}{7}$ )



Answer: \_\_\_\_\_ cm

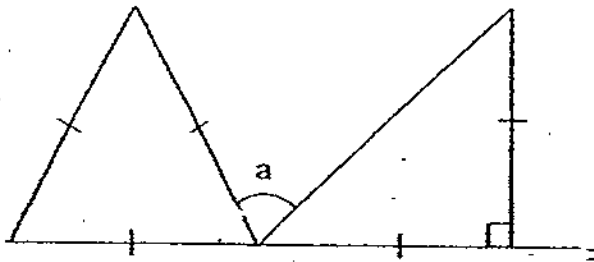
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20. In a shop, sweets are sold in packets of 5. Each packet of sweets costs 30¢. What is the maximum number of sweets that can be bought with \$5?

Answer: \_\_\_\_\_

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21. The diagram below, not draw to scale, shows 2 triangles resting on a straight line. Calculate  $\angle a$ .



Answer: \_\_\_\_\_

22. The total height of 5 girls is 8.05 m. What is the average height of one girl?

Answer: \_\_\_\_\_ cm

23. In a class of 40 pupils, 12 pupils take public transport to school. What percentage of the pupils take public transport to school?

Answer: \_\_\_\_\_ %

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24. In a test, the ratio of Fatimah's score to Huiling's score is 7 : 5. If Huiling scored 60 marks, how many more marks than Huiling did Fatimah score?

Answer: \_\_\_\_\_

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25. If  $x = 16$ , evaluate  $\frac{x}{4} + 2x$ .

Answer: \_\_\_\_\_

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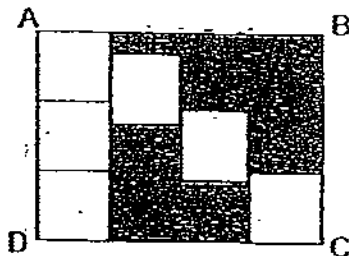
Questions 26 to 30 carry 2 marks each. Show your working clearly in the space below each question and write your answers in the spaces provided.

For questions which require units, give your answers in the units stated. (10 marks)

26. The difference between 2 numbers is 180. If one number is thrice the other number, what is the bigger number?

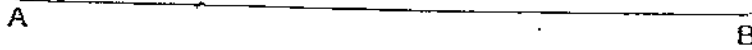
Answer: \_\_\_\_\_

27. In the figure below, 6 identical squares lie within the rectangle ABCD. Each square measures 3cm by 3cm. What is the perimeter of rectangle ABCD?

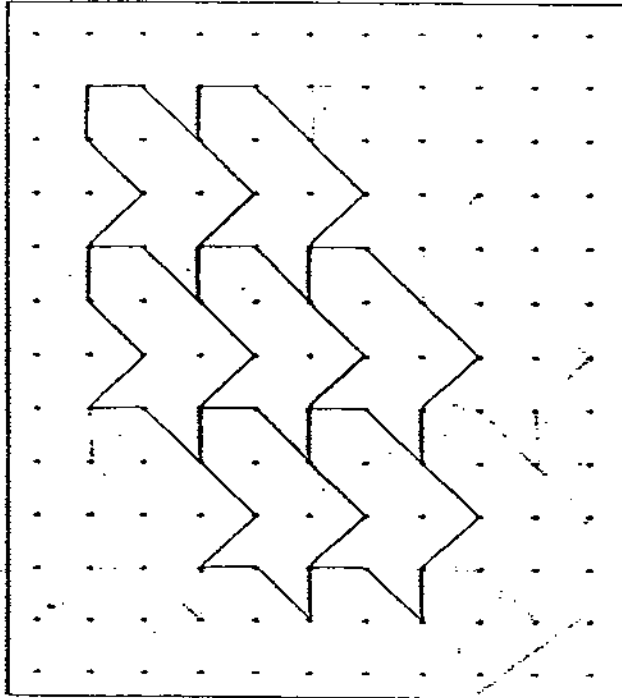


Answer: \_\_\_\_\_ cm

28. Construct a parallelogram ABCD where  $AD = 7\text{ cm}$  and  $\angle BAD = 65^\circ$ .  
The line AB is given below.



29. The pattern in the box shows part of a tessellation. Extend the tessellation by drawing four more unit shapes in the space provided within the box.



30. Mrs Poh went to the gym once every 4 days while Miss Neesa went to the same gym once every 5 days. If they first met each other at the gym on a Thursday, which day of the week would they meet for the second time?

Answer: \_\_\_\_\_

**PAYA LEBAR METHODIST GIRLS' SCHOOL (PRIMARY)**

**PRELIMINARY EXAMINATION, 2009**

**PRIMARY SIX**

**MATHEMATICS  
PAPER 2**

NAME : \_\_\_\_\_ ( ; )

CLASS : P 6 \_\_\_\_\_

DATE : 25 August 2009

Total Time for Booklets A and B : 1h 40 min

**INSTRUCTIONS TO CANDIDATES**

1. Do not turn over this page until you are told to do so.
2. Follow all the instructions carefully.
3. Answer all questions.
4. Show your working clearly as marks are awarded for correct working.
5. Write your answers in this booklet.
6. You are allowed to use a calculator.

	Marks Obtained	Maximum Marks
PAPER 2	/	60

Questions 1 to 5 carry 2 marks each. Show your working clearly in the space provided for each question and write your answers in the spaces provided.  
For questions which require units, give your answers in the units stated. (10 marks)

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1. Suyin is 12 years old this year. Her father is 4 times her age. What is their total age in  $y$  years' time?

Answer: \_\_\_\_\_

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2. A water bottle contains 2 l of water. If the water bottle is leaking at a rate of 8ml per second, how long does it take for the water bottle to be emptied?  
Give your answer in minutes and seconds.

Answer: \_\_\_\_\_ min \_\_\_\_\_ s

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3. Fanny queued in front of Zoe to take part in the "Singapore Has Talent" contest. The sum of their queue numbers is 4291. What is Zoe's queue number?

Answer: \_\_\_\_\_

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4. The statistics below shows the number of live-births registered in Singapore in the months of February and March 2008.

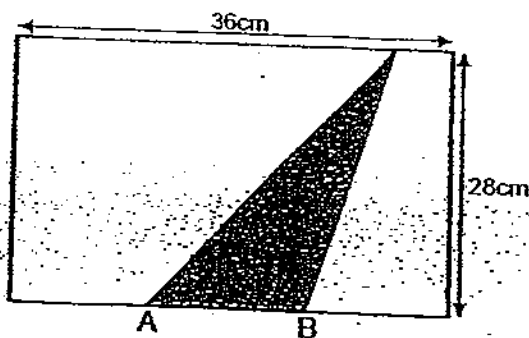
Total live-births by month of registration, 2008	
February	2981
March	3174

*Data taken from Statistics Newsletter Singapore, March 2009*

What is the percentage increase in live-births from February to March? Round off your answer to 2 decimal places.

Answer: \_\_\_\_\_ %

5. The diagram below, not drawn to scale, shows a shaded triangle drawn within a rectangle. The ratio of the length AB to the length of the rectangle is 1 : 3. Calculate the area of the shaded triangle.



Answer: \_\_\_\_\_ cm<sup>2</sup>

For questions 6 to 18, show your working clearly in the space provided for each question and write your answers in the spaces provided.

The number of marks available is shown in brackets [ ] at the end of each question or part question. (50 marks)

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6. School A has  $\frac{2}{3}$  as many pupils as School B. School B has  $\frac{3}{5}$  as many pupils as School C. If School A has 2234 pupils, how many pupils does School C have?

Answer : \_\_\_\_\_ (3m)

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7. Cathy has 1250 more stamps than John. After John gave Cathy 68 stamps, she had four times as many stamps as John. How many stamps did John have at first?

Answer : \_\_\_\_\_ (3m)

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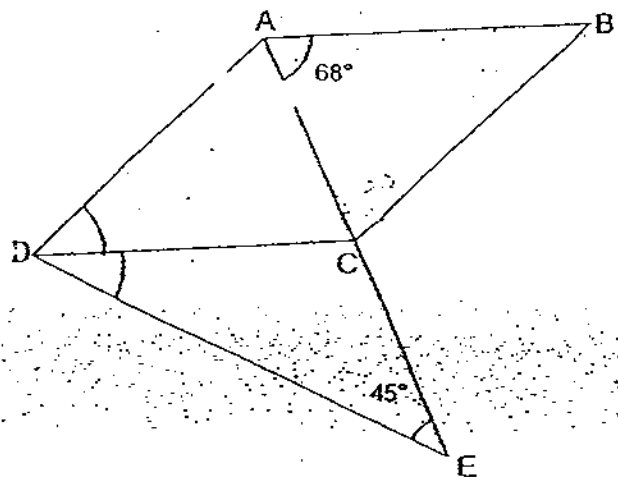
8. 1 bottle of shampoo and 1 bottle of bath foam cost \$15.50 altogether. Mrs Yeo bought 3 bottles of shampoo and 5 bottles of bath foam for \$59.70. How much did one bottle of bath foam cost?

Answer: \_\_\_\_\_ (3m)

9. In the figure below, not drawn to scale, ABCD is a rhombus.

$\angle BAC = 68^\circ$  and  $\angle CED = 45^\circ$ .

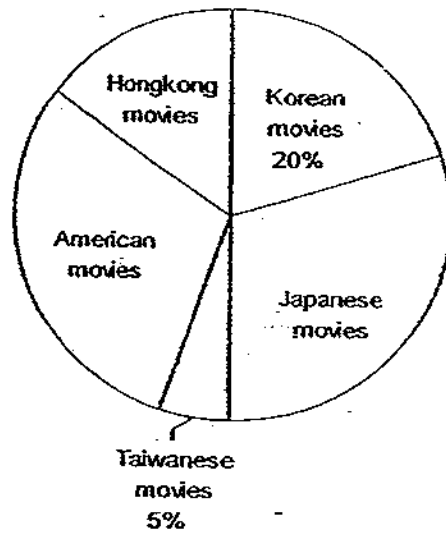
- (a) Calculate  $\angle ABC$ . (1m)  
 (b) Calculate  $\angle CDE$ . (2m)



Answer: (a) \_\_\_\_\_ (1m)

(b) \_\_\_\_\_ (2m)

10. The pie chart below shows the results of a survey done on the preferences of 700 movie viewers. Half of the viewers prefer Japanese and Korean movies



- (a) How many viewers like to watch Japanese movies? (1m)
- (b) The ratio of the number of viewers who like American movies to the number of viewers who like Korean movies is 7 : 4. How many viewers like American movies? (2m)

Answer : (a) \_\_\_\_\_ (1m)

(b) \_\_\_\_\_ (2m)

11. The table below shows the charges incurred when making overseas phone calls.

First 5 min	\$8.00
Every additional minute or part thereof	\$0.15

Miss Ong made an overseas phone call which lasted  $25\frac{1}{2}$  min. How much must she pay for the overseas phone call?

Answer : \_\_\_\_\_ (3m)

12. Mrs Liu spent  $\frac{1}{5}$  of her monthly salary on a handbag,  $\frac{4}{7}$  of the remainder on a vacuum cleaner and saved the rest of her monthly salary. If she saved \$1890, what was her monthly salary?

Answer : \_\_\_\_\_ (4m)

13. At an enrichment camp, the number of boys was 45% of the number of girls. When 20% of the boys left the camp, there were 192 more girls than boys. How many children were at the camp at first?

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Answer : \_\_\_\_\_ (4m)

14. Sally had some beads. On Monday, she gave half of her beads to her sister. On Tuesday, she used  $\frac{1}{4}$  of her remaining beads to make a necklace and bought another 426 beads. After that, she had 957 beads. How many beads did Sally have at first?

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Answer : \_\_\_\_\_ (4m)

15. Study the number pattern below.

$5^2 = 5 \times 5$	=	25
$5^3 = 5 \times 5 \times 5$	=	125
$5^4 = 5 \times 5 \times 5 \times 5$	=	625
$5^5 = 5 \times 5 \times 5 \times 5 \times 5$	=	3125

- (a) In  $5^6$ , what is the sum of the digits in the ones and tens place?
- (b) What is the sum of the last three digits in  $5^{15}$ ?
- (c) What is the sum of the last four digits in  $5^{210}$ ?

Answer : (a) \_\_\_\_\_ (1m)

(b) \_\_\_\_\_ (2m)

(c) \_\_\_\_\_ (2m)



16. Country A and Country B took part in a Youth Game. From Country A, the ratio of the number of male supporters to the number of female supporters is 5 : 6. From Country B, the ratio of the number of male supporters to the number of female supporters was 1 : 3. The total number of supporters from Country A is  $\frac{1}{4}$  of the total number of supporters from Country B.
- (a) What is the ratio of the number of female supporters from Country A to the number of female supporters from Country B? Express your answer in the simplest form.
- (b) After 4985 male supporters from both countries left, the percentage of <sup>on the</sup> female supporters became 78%. How many more male supporters from country B than Country A were there at first?

Answer: (a) \_\_\_\_\_ (2m)

(b) \_\_\_\_\_ (3m)

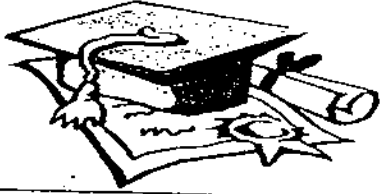
7. At 7am, a car started travelling from Town A towards Town B at an average speed of 64km/h. At 10am, a van started travelling from Town A towards Town B at an average speed of 56km/h. By then, the car had already covered  $\frac{2}{5}$  of the entire journey.

- (a) What was the distance between Town A and Town B?
- (b) How far from Town A had the van travelled when the car reached Town B?

Answer : (a) \_\_\_\_\_ (2m)

(b) \_\_\_\_\_ (3m)





# ANSWER SHEET

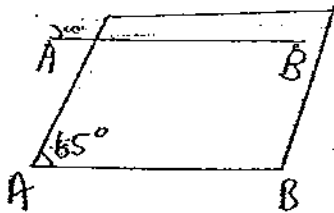
**EXAM PAPER 2009**

**SCHOOL : MGS. PAYA LEBAR PRIMARY**  
**SUBJECT : PRIMARY 6 MATHS**  
**TERM : SA2**

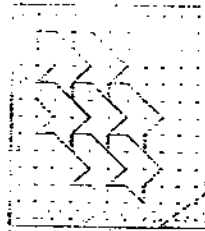
- |    |   |     |   |     |   |
|----|---|-----|---|-----|---|
| 1. | 3 | 6.  | 1 | 11. | 2 |
| 2. | 2 | 7.  | 4 | 12. | 3 |
| 3. | 2 | 8.  | 1 | 13. | 1 |
| 4. | 4 | 9.  | 2 | 14. | 1 |
| 5. | 3 | 10. | 4 | 15. | 1 |

16.  $1\frac{7}{15}$     17. 19590    18. 68    19. 44cm    20. 80    21.  $75^\circ$
22.  $161^\circ$     23. 30%    24. 24    25. 36    26. 270    27. 42cm

28.



29.



30. Wednesday

Paper 2

1.  $60+2y$     2. 4min 10 sec    3. 2146    4. 6.47%    5.  $168\text{cm}^2$
6. 5585    7. 530    8. \$6.60    9. a)  $44^\circ$     b)  $23^\circ$
10. a) 210    b) 245    11. \$11.15    12. \$5512.50    13. 435 children
14. 1416 beads    15. a) 7    b) 8    c) 18
16. a) 2:11    b) 5982    17. a) 480km    b) 252km    18. a)  $216\text{cm}^2$     18. b) 26.18%