

Pei Hwa Presbyterian Primary School
First Semestral Assessment – 2009
Mathematics
Primary 6 Paper 1
(Time: 50 min)

Booklet A	/ 20
Booklet B	/ 20
Total	/ 40

Name: _____ ()

Class: _____ (6)

Date : 14 May 2009

Parent's Signature: _____

Booklet A

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 provided. You are not allowed to use a calculator. (20 marks)

1. What is the ratio of the number of letter A to the number of letter B to the number of letter N in the word BANANA?

- (1) 1 : 3 : 2
- (2) 3 : 1 : 2
- (3) 3 : 1 : 3
- (4) 3 : 2 : 1

2. Which of the following is NOT the same as 12 : 60 ?

- (1) $\frac{1}{2} : 2\frac{1}{2}$
- (2) 2 : 10
- (3) 0.2 : 1
- (4) $1 : \frac{1}{5}$

3. Express 1.956 as a percentage.

- (1) 0.01956%
- (2) 0.1956%
- (3) 195.6%
- (4) 1956%

4. If 80% of the people attending the party were males, how many per cent more males than females were there?

- (1) 25%
- (2) 60%
- (3) 300%
- (4) 400%

5. What is $\frac{1}{4}$ % of 16 kg?

- (1) 0.04 kg
- (2) 0.4 kg
- (3) 4 kg
- (4) 40 kg

6. Ismail had \$90.

If he spent \$63, what percentage of his money was left?

- (1) 30%
- (2) 43%
- (3) 60%
- (4) 70%

7. Kamala drove from Town A to Town B in 50 minutes at an average speed of 72km/h. How far apart were Town A and Town B?

- (1) 36 km
- (2) 60 km
- (3) 100 km
- (4) 3600 km

8. $\frac{1}{3}$ of Betsy's money is $\frac{2}{7}$ of Talia's money.

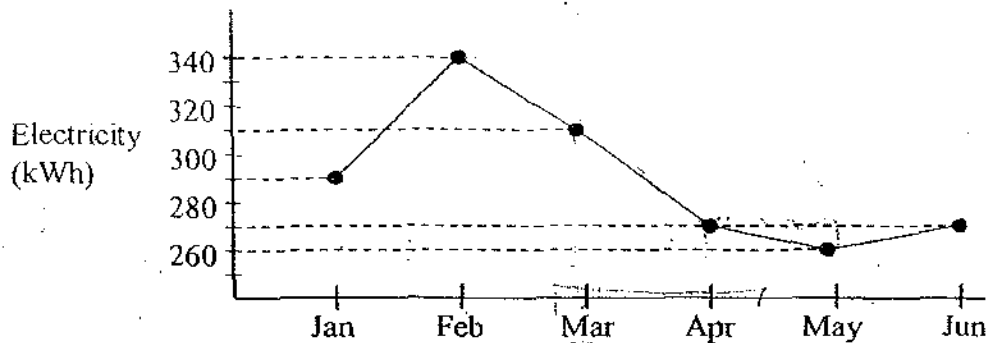
Express Betsy's money as a fraction of Talia's money.

- (1) $\frac{2}{10}$
- (2) $\frac{6}{7}$
- (3) $\frac{2}{21}$
- (4) $\frac{13}{21}$

9. Which of the following has the smallest value?

- (1) $\frac{1}{3} \div \frac{1}{8}$
- (2) $\frac{1}{8} \div \frac{2}{9}$
- (3) $\frac{1}{4} \div \frac{7}{8}$
- (4) $\frac{1}{4} \div \frac{1}{2}$

10. The line graph below shows a family's electricity consumption in 6 months.

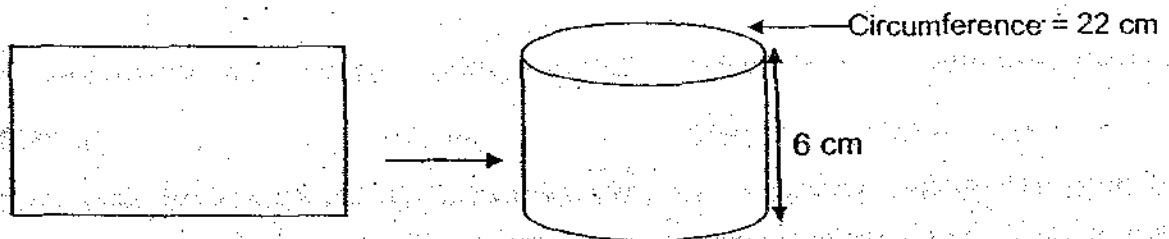


The greatest decrease in electricity consumption was from _____.

- (1) January to February
 - (2) February to March
 - (3) March to April
 - (4) May to June
11. $\frac{6}{7}$ of Katie's mass is twice of Jill's mass. If Katie weighs 28 kg more than Jill, find Jill's mass.

- (1) 21 kg
- (2) 14 kg
- (3) 12 kg
- (4) 4 kg

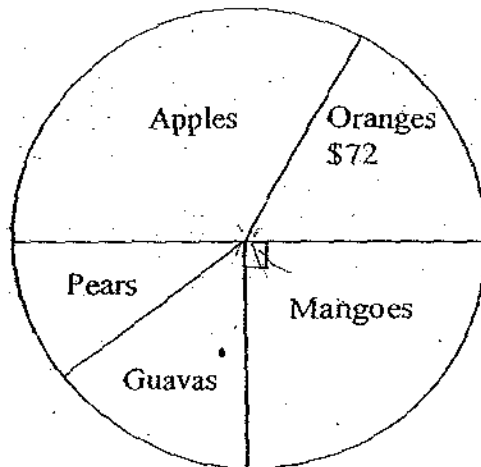
12. A rectangular piece of paper was rolled up to form a hollow cylindrical tube as shown below.



Find the perimeter of the rectangular piece of paper if the circumference of the tube is 22 cm.

- (1) 28 cm
- (2) 44 cm
- (3) 50 cm
- (4) 56 cm

13. The pie chart below shows the types of fruits Mrs Chen bought for a party. If Mrs Chen spent as much money on oranges as on guavas and $\frac{1}{12}$ of her money on pears, how much did she spend on apples and pears?



- (1) \$144
- (2) \$180
- (3) \$216
- (4) \$360

42 cubes of side 2 cm are needed to build a rectangular block. If the perimeter of its base is 20 cm, what is the height of the rectangular block?

- (1) 6 cm
- (2) 12 cm
- (3) 14 cm
- (4) 21 cm

15. Meiling saves 10% of her salary. When her salary was increased by 10%, her savings rose proportionately to \$165. What was her original salary?

- (1) \$1 350
- (2) \$1 485
- (3) \$1 500
- (4) \$1 650



Pei Hwa Presbyterian Primary School
First Semestral Assessment – 2009
Mathematics
Primary 6 Paper 1
(Time: 50 min)

Name: _____ ()

Class: _____ (6)

Date : 14 May 2009

Booklet B

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.

You are not allowed to use a calculator.

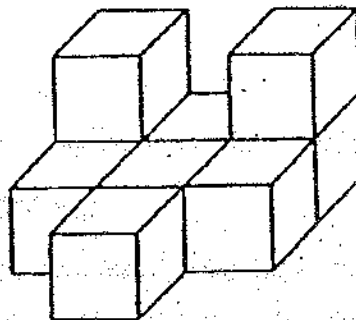
(20 marks)

16. Kimberley is 1.25m tall.

If her height increases by p cm each month for half a year, how tall will she be then?

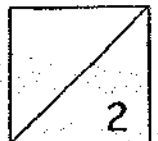
Answer: _____ cm

17. Nine identical, perfectly shaped cubes have been combined to form a solid as shown below.



How many faces does this solid have?

Answer: _____



18. Simplify $2.7 : 0.12$

Answer: _____

19. Jenny bought a bag for \$36.

If the price of a bag is decreased by 5%, what is the ratio of the new price to the original price?

Answer: _____

20. 240g of Mixture A contains 12g of cocoa powder.

Calculate the percentage of cocoa powder in Mixture A.

Answer: _____ %

21. One number is 75% of another number.

The larger number is 93 more than the smaller number.

What is the smaller number?

Answer: _____



22. A new washing machine cost \$580.
During a sale, the price of the washing machine was reduced by 35%.
How much did it cost during the sale?

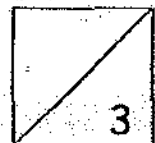
Answer: \$ _____

23. On a race track, Car A travels 7 laps per minute and Car B travels 9 laps a minute.
If the race track is 1km, how much faster is Car B than Car A?

Answer: _____ km/h

24. There is enough food to feed either 30 adults or 42 children.
If there are already 25 adults, how many children can still be fed?

Answer: _____



66

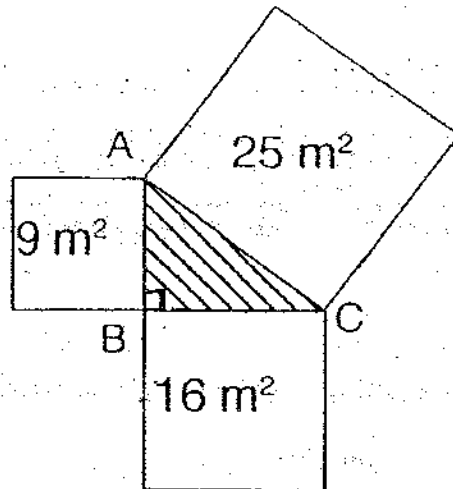
25. A pizza of radius 35cm is cut into 11 equal parts.
Find the perimeter of each slice of pizza. (Take $\pi = \frac{22}{7}$).

Answer: _____ cm

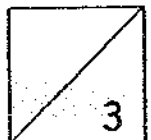
Questions 26 to 30 carry 2 marks each. Show your working clearly in the space provided for each question and write your answers in the answer spaces provided. For questions which require units, give your answers in the units stated.

(10 marks)

26. The figure is made up of a triangle and 3 squares with their given areas.
Find the ratio of the area of the shaded triangle to the length of AC.



Answer: _____



27. If A is 25% more than B and C is 50% more than B, how many per cent more than A is C?

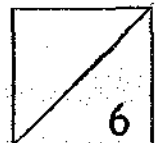
Answer: _____ %

28. Jonathan jogs at 100m/min and takes 15 minutes to reach the school.
If he jogs at 120m/min, how many minutes earlier will he reach the school?

Answer: _____ min

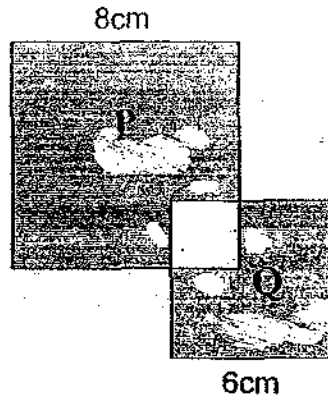
29. A hamster runs on its wheel which has a diameter of 42 cm.
The wheel makes a complete revolution every 12 seconds.
What is its speed? (Take $\pi = \frac{22}{7}$)

Answer: _____ cm/s



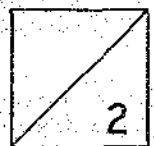
68

30. Two squares, P and Q, of sides 8cm and 6cm respectively, overlap each other partially.
Find the difference between the two shaded areas.



Answer: _____ cm²

~End of Paper I~





Pei Hwa Presbyterian Primary School
First Semestral Assessment – 2009
Mathematics
Primary 6 Paper 2
(Time: 1 h 40 min)

Paper 1	/ 40
Paper 2	/ 60
Total	/ 100

Name: _____ ()

Class: _____ (6)

Date : 14 May 2009

Parent's Signature: _____

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. You are allowed to use a calculator. (10 marks)

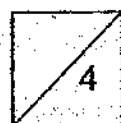
1. Sumei had \$300 to buy some-identical chairs.
The shop owner gave her a 25% discount and she was thus able to buy 5 more chairs.
What was the price of one chair before the discount?

Answer: \$ _____

2. Nirmala bought a total of 5 T-shirts.
How much did she pay altogether?



Answer: \$ _____



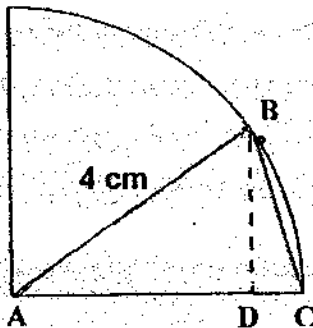
3. Mr Smith painted 60% of a square wall purple, 20% of it blue and the remaining area of 12.8m^2 beige.
Find the perimeter of the square wall.

Answer: _____ m

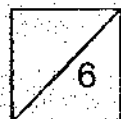
4. Auntie Melanie is walking on the platform of an MRT station at $120\text{m}/\text{min}$.
A train overtakes her completely in 25 seconds.
The length of the train is 300 metres.
How fast is the train?

Answer: _____ m/s

5. ABC is a triangle inside a quadrant as shown below.
Given $AB = 4\text{cm}$ and area of triangle $ABC = 12\text{cm}^2$.
Find the length of BD.



Answer: _____ cm



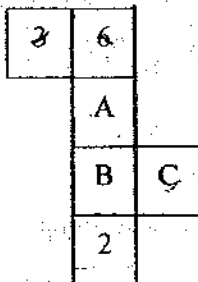
For questions 6 to 18, show your working clearly in the space provided for each question and write your answers in the space provided.

The number of marks available is shown in brackets [] at the end of each question or part-question. You are allowed to use a calculator. (50 marks)

6. A baker sells 60 muffins at $45x$ cents each.
If he reduces the selling price to $30x$ cents each, how many more muffins must he sell to collect the same amount of money?

Answer: _____ [3]

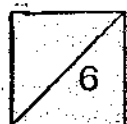
7. The net of a cube is shown below.
Opposite faces of the cube have numbers that multiply to give 24.
Find the value of A, B and C.



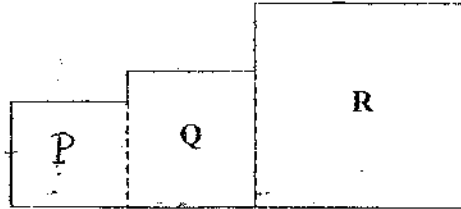
Answer: A: _____ [1]

B: _____ [1]

C: _____ [1]



8. The total area of the figure formed by 3 squares, P, Q and R is 146cm^2 .
Find the side of each of the 3 squares.



Answer: P: _____
Q: _____
R: _____ [3m]

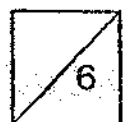
9. A bag of stickers was equally divided among 58 children.

36 of these children gave up $\frac{1}{2}$ of their share.

As a result, the remaining children received ~~27~~⁵⁴ more stickers each.

How many stickers were there in the box?

Answer: _____ [3]

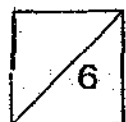


10. Sanyo has a piece of 10-m long thin metal wire.
How many rings of diameter 9 cm can he bend from the wire? (Take $\pi = 3.14$)

Answer: _____ [3]

11. The long staircase at a HDB block has 300 steps.
Michael climbed 3 steps at one go while his brother, Terry, climbed 4 steps.
If the steps both of them stepped on is counted once only, how many steps on
the long staircase did they step on?

Answer: _____ [3]



12. Mrs Jones baked 680 apple and almond cookies altogether.

She gave ~~50%~~ ^{3/4} of the apple cookies and $\frac{3}{4}$ of the almond cookies to her friend.

She was left with 210 cookies.

How many almond cookies did she bake at first?

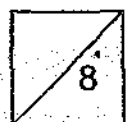
Answer: _____ [4]

13. A lorry left Happy Town for Bayview Town at 60km/h.

Two hours later, a sports car travelling at 140km/h left Happy Town for Bayview Town too.

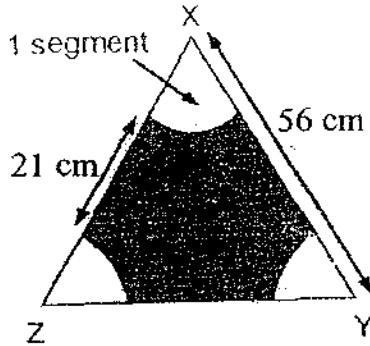
The sports car caught up with the lorry at a distance of 20km away from Bayview Town. Find the distance between the two towns.

Answer: _____ [4]



14. Three similar segments are marked out on an equilateral triangle XYZ.
Each side of the equilateral triangle is 56 cm.

Taking $\pi = \frac{22}{7}$, find the perimeter of the shaded region.



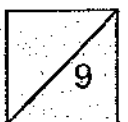
Answer: _____ [4]

15. The ratio of the number of blue marbles to the number of yellow marbles in a box was 5 : 3.

When 120 blue marbles were replaced by 120 yellow marbles, the ratio of the number of blue to yellow marbles became 5 : 7.

How many yellow marbles were there at first?

Answer: _____ [5]



16. Amy, Benson, Caleb and Devi shared some postcards.

Amy received 20% of the postcards.

Benson received 16 fewer postcards than Amy.

Caleb received twice as many postcards as Benson.

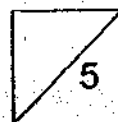
Devi got the remaining 144 postcards.

a) Find the total number of postcards shared by Amy, Benson, Caleb and Devi.

b) How many per cent more postcards than Amy did Devi receive?

Answer: (a) _____ [3m]

(b) _____ [2m]



17. Gibson had 50-dollar, 20-dollar and 10-dollar tickets for a school funfair in the ratio 1 : 5 : 4.

The total value of the funfair tickets was \$3420.

a) Find the number of each type of tickets he had.

b) After selling $\frac{1}{4}$ of the 10-dollar tickets and a few 20-dollar tickets, he found that $\frac{2}{11}$ of the remaining tickets were 50-dollar tickets.

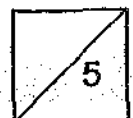
How many 20-dollar tickets did he sell?

Answer: (a) 50-dollar: _____

20-dollar: _____

10-dollar: _____ [2m]

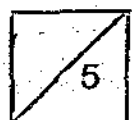
(b) _____ [3m]



18. A marathon runner has some water in his water bottle.
Every time he comes to a refill station, he doubles the amount of water in his bottle.
Every time he comes to a rest stop, he drinks 500ml of his water.
During one race, the marathon runner passes a refill station and a rest stop three times.
After the third rest stop, he finds his water bottle empty.
How much water did he have in the bottle at the beginning of the race?

Answer: _____ [5]

End of Paper



ANSWER SHEET

EXAM PAPER 2009

**SCHOOL : PEI HWA PRIMARY
SUBJECT : PRIMARY 6 MATHEMATICS**

TERM : SA1

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
2	4	3	3	1	1	2	2	3	3	1	4	2	3	3

- 16)(125+6p) 17)34 18)45:2 19)19:20 20)5%
21)279 22)\$377 23)120km/h 24)7 25)90cm
26)6:5 27)20% 28)12.5min 29)11cm/s 30)28cm²

Paper 2

- 1)\$20 2)\$251.58 3)32m 4)14m/s 5)6cm
6)30 7)A:12 B:4 C:8 8)P:4cm Q:7cm R:9cm
9)3828 10)35 11)150 12)520 13)230km
14)118cm 15)216 16)a)480 b)50%
17)a)18 b)17 18)437.5ml

90
72