RAFFLES GIRLS' PRIMARY SCHOOL

SEMESTRAL ASSESSMENT 1
2008

Math Class:

me : _____ (   ) Class: P6___

Your Score Out of **100** 95 marks		
	Class	Level
Highest score		
Average score		
Parent's Signature		

6 May 2008   MATHEMATICS Att: 2 h 15 min

SECTION A (20 marks)

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 your answer (1, 2, 3 or 4) on the OAS provided.

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1. Express 4 kg 4 g in grams.

    (1)   44
    (2)   404
    (3)   4004
    (4)   4400

2. Find the value of $\dfrac{16-3k+2}{2}$ given that $k = 2$.

    (1)   12
    (2)   11
    (3)   6
    (4)   4

3. B is half of A and C is $\dfrac{5}{6}$ of A.

    What is the ratio of A : B : C?

    (1)   1 : 2 : 1
    (2)   2 : 1 : 5
    (3)   3 : 2 : 3
    (4)   6 : 3 : 5

4. Joseph was facing Northwest at first.

   After turning anti-clockwise, he was facing East.

   At what angle did he turn?

   (1)   135°

   (2)   225°

   (3)   270°

   (4)   90°

5. The perimeter of an equilateral triangle is e cm.

   Find each side of the triangle in terms of e.

   (1) $\dfrac{e}{3}$

   (2) $\dfrac{3}{e}$

   (3) $3e$

   (4) $3 + e$

6. Fill in the blank with the correct answer.

   1, 5, 13, _____, 61, 125

   (1)   29

   (2)   32
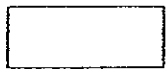
   (3)   46

   (4)   58

7. $12\dfrac{32}{100} = 10 + 2 + \dfrac{30}{100} + \dfrac{2}{\square}$. What is the missing number in the box?

    (1)   10

    (2)   100

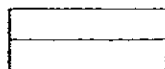   (3)   1000

    (4)   10000

8. The diagrams below are three views of the same solid.
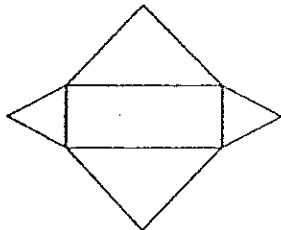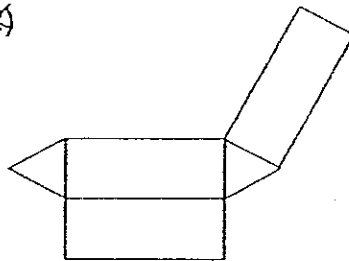

Side view   Bottom view   Top view

Which of the following is the net of the above solid?
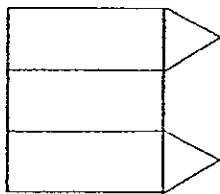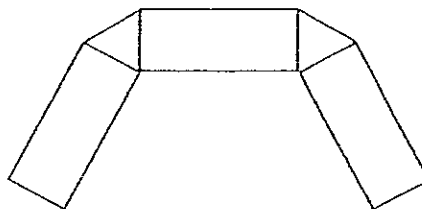
(1)

(2)

(3)

(4)

9. 25% of Ali's savings is the same as 20% of Bryan's savings.
    Express Bryan's savings as a fraction of Ali's savings.

    (1) $\dfrac{4}{5}$

    (2) $\dfrac{4}{9}$

    (3) $\dfrac{5}{4}$

    (4) $\dfrac{5}{9}$

10. The difference between the value of the digit 4 in 23.14 and 7.714 is _____.

    (1)   0.008
    (2)   0.036
    (3)   0.044
    (4)   0.054

11. Ray had $22.50 and Sam had $7.50.
    How many per cent more money did Ray have than Sam?

    (1) $33\dfrac{1}{3}$ %

    (2)   50 %

    (3) $66\dfrac{2}{3}$ %

    (4)   200 %

3

12. A number when divided by 7 gives a remainder of 1 and a remainder of 2 when it is divided by 3. What is the number?

(1)   8
(2)   11
(3)   15
(4)   22

13. Arrange the fractions in descending order.

$$\frac{5}{6}, \frac{7}{8}, \frac{2}{5}, \frac{1}{2}$$

(1) $\frac{1}{2}, \frac{2}{5}, \frac{5}{6}, \frac{7}{8}$

(2) $\frac{2}{5}, \frac{1}{2}, \frac{5}{6}, \frac{7}{8}$

(3) $\frac{7}{8}, \frac{5}{6}, \frac{1}{2}, \frac{2}{5}$

(4) $\frac{7}{8}, \frac{5}{6}, \frac{2}{5}, \frac{1}{2}$

14. What is the missing number in the box?

$$\frac{78}{9} = 7 + \frac{\square}{3}$$

(1)   5
(2)   2
(3)   6
(4)   15

4

15. Ali and Tom competed in a race. Ali ran at the speed of 12km/h during the first half of the journey and 4km/h during the second half of the journey.
Tom ran at the average speed of 8km/h throughout the journey.
Who won the race?

    (1)   Ali

    (2)   Tom

    (3)   They completed the race at the same time.

    (4)   It is impossible to tell who won the race.

5

SECTION B (30 marks)

Question 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. All diagrams are not drawn to scale. Answers in fractions or ratio must be expressed in the simplest form.

16. Arrange the numbers in ascending order.

30 080, 30 800, 38 000, 30 008

Ans: _____

17. Fill in the blanks with a suitable answer.

1600 x 400 = _____ x 100

Ans: _____

18. Given that $\frac{3}{10}$ of a number is 54. What is the number?

6

Ans: _____

19. Jolyn mixed $\frac{3}{4}$ kg of flour and $\frac{1}{8}$ kg of butter together.

She used $\frac{1}{2}$ kg of the mixture to bake cookies.
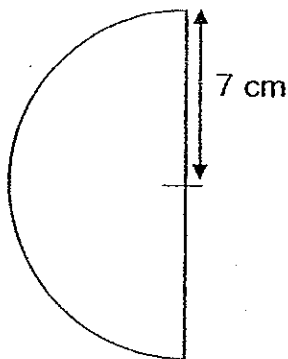
How much of the mixture was left?

Ans:_____kg

20. Express $13\frac{3}{8}$ as a decimal.

Ans:_____

21. A piece of cloth 24 m 28 cm long was cut into 2 pieces.
The longer piece was thrice as long as the shorter piece.
What was the length of the shorter piece?

Ans:_____m

22. Find the perimeter of the semi-circle. (Take $\pi = \frac{22}{7}$)

7 cm

Ans:_____cm

7

23. In a dart game, Marvin scored y points.
    Jess scored thrice of what Marvin scored.
    Find their average score.

    Ans: _____

24. Jasmine was running at an average speed of 5m/s for 2 minutes.
    Calculate the distance she ran.

    Ans: _____ m

25. Mr Wu left his office at 5.30 p.m. He took 45 minutes to
    reach home. At what time did he reach home?
    (Give your answer in the 24-hour clock)

    Ans: _____

Question 26 to 35 carry 2 marks each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated. All diagrams are not drawn to scale. Answers in fractions or ratio must be expressed in the simplest form. Marks will be awarded for relevant working.

26. Jason spent 80% of his pocket money on food and 15% of the remaining amount on magazines. What percentage of his pocket money was left?

Ans: _____ %

27. Evaluate $60 - 40 \div 4 \times 5 + 9$

Ans: _____

28. Chloe bought $\frac{5}{6}$ m of ribbon. She cut the ribbon into strips of $\frac{1}{12}$ m.
She gave 2 strips of ribbon to each of her 3 daughters.
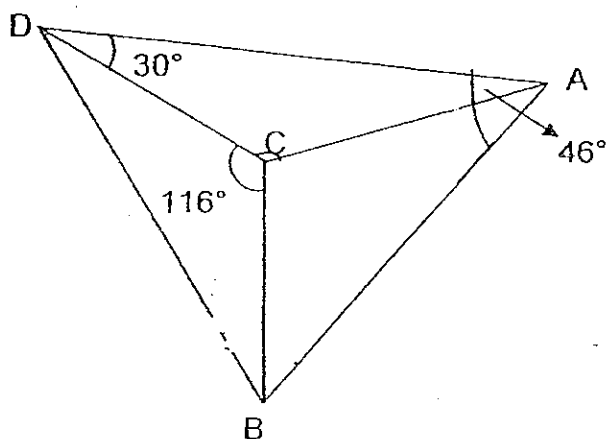What was the total length of ribbon left?

Ans: _____ m

9

29. At a fruit stall, Mr Ang sold his apples at 3 for $1 and his oranges at 1 for $0.75.
Mrs Lim bought 1 dozen apples and 15 oranges. How much money did she spend altogether?

Ans: $_____

30. In the figure below, ∠BAD = 46°, ∠ADC = 30° and ∠BCD = 116°.

Find ∠ABC.

Ans: _____ °

31. Florence had 240 cards and Benny had 360 cards at first.
After selling an equal number of cards, the number of cards Florence had left
to the number of cards Benny had left was 1 : 3.
How many cards did each of them sell?

Ans: _____

32. During a fair, Alexis earned $8x for the key chains she sold.

Alexis's earning to Corinne's earning was 4 : 1.

If x = 6, how much was the total earning?

Ans: $ _____

33. A bus left Town A for Town B at a speed of 45km/h. At the same time, a van left Town B for Town A at the speed of 55km/h. Both vehicles travelled along the same road. How far apart were they 1 hour before they met?

Ans: _____ km

34. A rectangular piece of paper is folded along the dotted lines to form a small rectangle as shown below. What is the ratio of the original area of the paper to the area of the final rectangle formed?

8 cm   4 cm

Original   →   →   →   Final
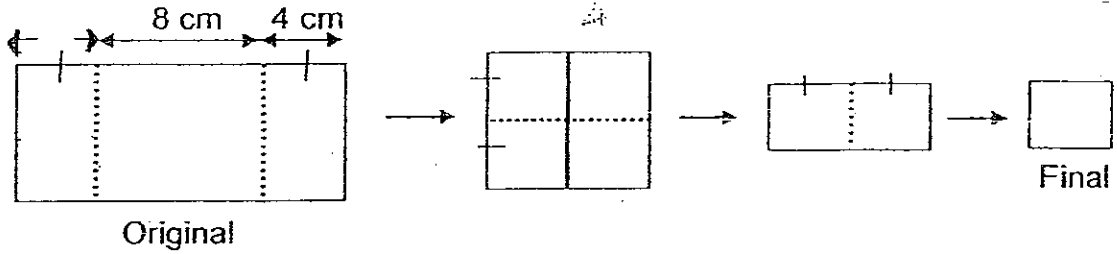
Ans: _____

35. Ahmad paid $640 for a vase at a discount of 20%. Ben paid $520 for a similar vase. What was the percentage discount given to Ben?

Ans:_____%

SECTION C (50 marks)

For question 36 to 48, show your working clearly in the space provided below each question and write your answer with suitable units in the spaces provided. All diagrams are not drawn to scale. Answers in fractions or ratio must be expressed in the simplest form. Marks will be awarded for relevant working. The number of marks available is shown in brackets [ ] at the end of each question or part-question.

36. Jeff saved $5 each day and Mei saved $y less than Jeff each day.

    After two weeks, they were still short of $30 to buy a fan.

    How much did the fan cost?

    Ans:_____[3]

37. In the addition sum below, each letter represents a different digit. Find the digit that each letter represents.

$$
\begin{array}{cccc}
  & X & Y & Z \\
+ & X & Y & Z \\
\hline
  Y & Y & X \\
\hline
\end{array}
$$

    Ans: X:_____[1]

    Y:_____[1]

    Z:_____[1]

38. John is paid $3 for every file he sells. He receives a bonus of $20 for every 75 files he sells. How many files must he sell to earn $1249?

Ans:_____[3]

39. A tank was $\frac{4}{11}$ full after Alice poured 6 bottles of water into it. Ken used another 3 bottles and 10 glasses of water to fill the tank to its brim. All the water from the tank was then poured into glasses. How many glasses would be needed?

Ans:_____{3]

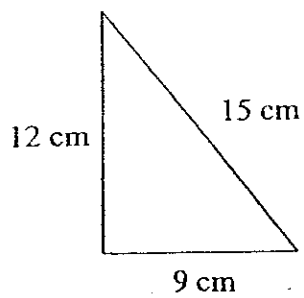40. Figure B is made up of 4 triangles that is similar to figure A. Find the perimeter of figure B.
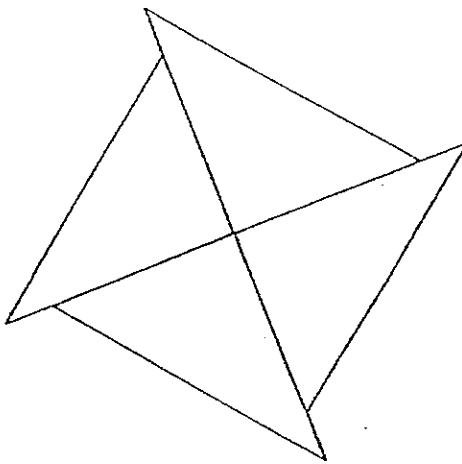

15 cm
12 cm
9 cm

Figure A

Figure B

Ans:_____ [3]

41. Jane takes 10 days to complete stringing a number of beads.
Sharon takes 18 days to complete the same job.
Jane started stringing the beads first and left the remainder to Sharon to complete. They took 14 days to complete the job together.
How many days did Jane spend on the job?

16

Ans: _____[3]

42. The ratio of the amount of water in Bottle A to the amount of water in Bottle B was 2 : 1. After 60 ml of water was poured into Bottle A and 150 ml was poured out of Bottle B, the ratio became 4 : 1.
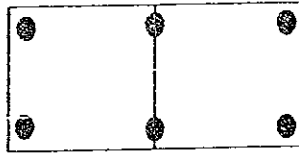
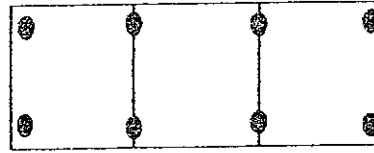What was the amount of water in Bottle A at first?

Ans:_____[4]

/7

43. To pin up 1 poster on the board, 4 pins are required. To pin up 2 posters, 6 pins are needed.
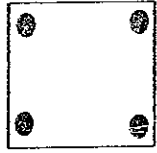
1 poster   2 posters   3 posters

a) How many pins are needed to pin up 50 posters?

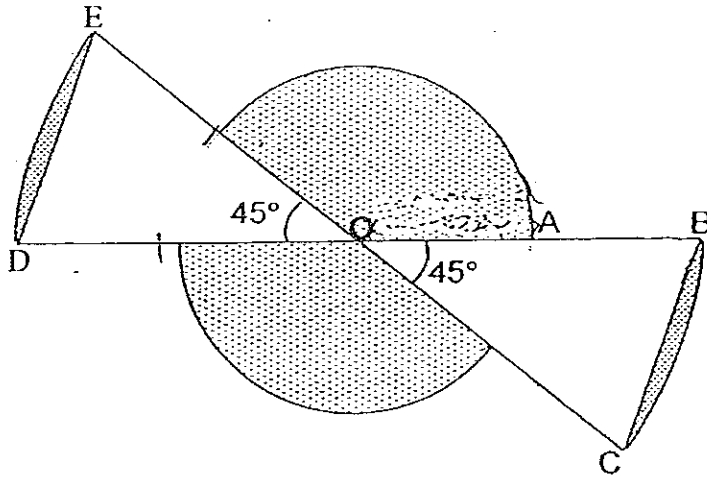b) How many posters are pinned up if Mary uses 86 pins?

Ans: a) _____ [2]

b) _____ [2]

18

44. The cost of 0.5 kg of lady's fingers is the same as 1.5 kg of carrots. Mrs Devi spent $41.25 for 2 kg of lady's fingers and 10.5 kg of carrots. What was the cost of 1 kg of carrots?

Ans:_____[4]

9

45. In the figure below, O is the centre. OA is 10 cm and OB is 20 cm.

OD = OB, OE =OC

Area of △OBC is 135 cm². (Take π = 3.14)

Find the total area of the shaded parts.

Ans: _____ [5]

46. Mr Yong bought 1 500 pens. He sold 30% of them at $2.50 each and 80% of the remainder at a discount of 12%.

   was
   a) What is the selling price of a pen after the discount?

   b) Mr Yong sold the rest of the pens at cost price and earned $1038. What was the cost price of each pen?

Ans: a)_____[1]

   b)_____[4]

47. Lynn had 2 250 beads. She transferred $\frac{1}{6}$ of the number of beads from Box A to Box B. Then she transferred $\frac{3}{8}$ of the new number of beads from Box B to Box A. Later, she transferred $\frac{2}{9}$ of the new number of beads from Box A to Box B. In the end, the ratio of the number of beads in Box A to Box B was 28 : 17. How many beads were there in Box B at first?

48. At 09 00, a van left Town P for Town Q. After some time, a car left Town Q for Town P. The two vehicles met at 11 30. The ratio of the speed of the van to the speed of the car is 3 : 5.

    a) What time did the car leave Town Q?

    b) If the distance between Town P and Town Q is 150km, calculate the speed of the van.

Ans: a) _____ [3]

b) _____ [2]

-End of Paper-
Please check your work carefully ☺

23

ANSWER SHEET

EXAM PAPER 2008

SCHOOL   :   RAFFLES GIRL'S PRIMARY SCHOOL
SUBJECT :   PRIMARY 6 MATHEMATICS

TERM   :   SA 1

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

16) 30008, 30080, 30800, 38000   17) 6400   18) 180   19) 3/8kg

20) 13.375   21) 6.07m   22) 36cm   23) 2y

24) 600m   25) 1815   26) 17%   27) 19

28) 1/3 m   29) $15.25   30) 40   31) 180

32) $50   33) 100km   34) 8°1   35) 35

36) 5x14=70
    (5-y)x14=70-14y
    70+(70-14y)+30=170-14y
    Ans: $(170-14y)

37) X:4
    Y:9
    Z:7

38) 75x3=225
    225+20=245
    1249÷245=5r24
    5x75=375
    24÷3=8
    8+375=383 files

39) 4/11→6b
7/11→3b+10g
2/11→3b
5/11→10g
1/11→2g
11/11→22g

40) 12÷9=3
3+15=18
18x4=72 cm

41) 5 days

42) $\dfrac{2y+60}{4} = \dfrac{y-150}{1}$

2y+60=4y-600
660=2y
Y=330
330x2=660ml

43) a) 1x2+2
2x2+2
3x2+2
50x2+2=100+2
=102 pins
b) 86-2=84
84÷2=42 poster

44) 10.5÷1.5=7
7x0.5=3.5
3.5+2=5.5

Lady fingers
5.5→41.25
0.5→3.75
3.75→1.5kg
1.25→0.5kg
2.50→1kg
Ans:$2.50

45) $\dfrac{270}{360}$ X 3.14x10x10=235.50

$\dfrac{45}{360}$ X 3.14x20x20=157

157-135=22
22x2=44
44+235.5
=279.5cm2

46) a) 100-12=88

$\dfrac{2.50 \times 88}{100}$

=$2.20

b) 1500 X $\dfrac{70}{100}$ X 1050

1050 X $\dfrac{20}{100}$ = 210

1038-(1500-210)=1038÷1290
1500 X $\dfrac{30}{100}$ = 450

2.50 X 450 = 25 x 45 =1125
1050 X $\dfrac{80}{100}$ = 840

2.20 x840 = 22x84=1848
1848+1125=2973
2973-1038=1935
1935÷(840+450)=1935÷1290=$1.50

47) 28+17=45
2250÷45=50
50x28=1400
17x50=850
200x9=1800
90x8=720
1800-270=1530
720-450=270
1530÷5=310
310x6=1860

1530 → 5/6
1/6 → 306
6/6 → 1836

	Box A	B
In the end	28	17
	1400	850
	1800	450
	1530	720

1836 → 720=306 =414 beads.

48) a) 1000
b) 30 km/h

—end—