

NAN HUA PRIMARY SCHOOL
SEMESTRAL ASSESSMENT 2 - 2007
PRIMARY 5

MATHEMATICS

(BOOKLET A)

15 Multiple Choice Questions (20 marks)

Total Time for booklets A and B: 2 hours 15 minutes

INSTRUCTIONS TO CANDIDATES

1. Write your Index Number in the bracket given next to your name.
2. Do not turn over the page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Shade your answers in the Optical Answer Sheet (OAS) provided.

Marks Obtained

Booklet A		/ 20
Booklet B		/ 80
Total		/ 100

Name : _____ () 142

Class : P 5 _____

Date : 25 October 2007

Parent's Signature : _____

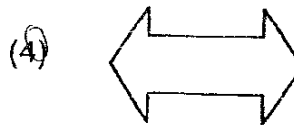
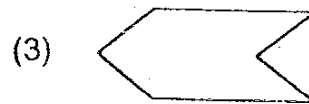
Questions 1 to 10 carry 1 mark each. Questions 11 to 15 carry 2 marks each.
 For each question, 4 options are given. Only one of them is correct.
 Make your choice (1, 2, 3 or 4). Shade the correct oval in the Optical Answer Sheet
 (OAS) provided. (20 marks)

1. 70 thousands + 7 thousands + 7 ones = _____
 What is the missing value in the blank?

- (1) 70 707
- (2) 77 007
- (3) 707 007
- (4) 707 707

()

2. Which of the following shapes cannot tessellate?



()

3. Write $10 + \frac{1}{10} + \frac{5}{1000}$ as a decimal.

- (1) 10.015
- (2) 10.105
- (3) 10.150
- (4) 10.510

()

4. $\frac{9}{50}$ expressed as a percentage is _____.

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- (1) 0.18%
- (2) 1.80%
- (3) 18.0%
- (4) 180%

()

5. Which one of the numbers below is 13 000 when rounded off to the nearest thousand?

(1) 13 768

(2) 13 678

(3) 13 548

(4) 13 458

()

6. $\frac{9}{10}$ ℓ of Ribena drink was shared equally among 3 friends. How many litres of

Ribena did each friend get?

(1) $2\frac{7}{10}$ ℓ

(2) $\frac{9}{10}$ ℓ

(3) $\frac{3}{10}$ ℓ

(4) $\frac{27}{100}$ ℓ

()

7. At the Underwater World, 35% of the visitors are children while the rest are adults. Express the ratio of the number of children to the number of adults in the simplest form.

(1) 7 : 13

(2) 7 : 20

(3) 13 : 7

(4) 20 : 7

()

8. Find $(84.6 - 1.35) \div 100$.

(1) 0.8325

(2) 0.8335

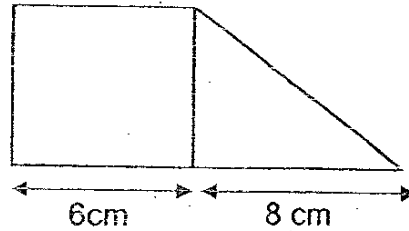
(3) 8 325

(4) 8 335

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()

9. The figure below is made up of a triangle and a square. Find the area of the figure.
(Figure is not drawn to scale.)



- (1) 14 cm^2
 (2) 48 cm^2
 (3) 60 cm^2
 (4) 84 cm^2

()

10. A baker used 1kg 200g of sugar and had 800g left.
What fraction of sugar had he left?

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

()

11. Study the following number pattern.

145 3 , 7 , 15 , , 63 , 127

- (1) 23
 (2) 27
 (3) 30
 (4) 31

()

12. Janice spent $\frac{2}{10}$ of her savings on books and donated \$15 from her savings.

She had $\frac{1}{2}$ of her savings left. How much was her savings at first?

- (1) \$5
- (2) \$25
- (3) \$50
- (4) \$65

()

13. If 4 is added to $\frac{1}{5}$ of a number, the result is 19.

What is the number?

- (1) 15
- (2) 75
- (3) 95
- (4) 99

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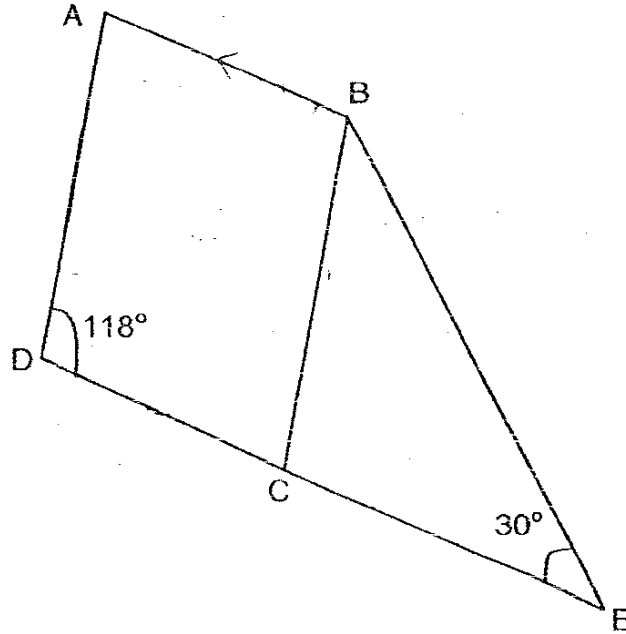
14. The average mass of John and Sam is 48 kg. The ratio of John's mass to Sam's mass is 5 : 3. Find John's mass.

- (1) 18 kg
- (2) 30 kg
- (3) 36 kg
- (4) 60 kg

()

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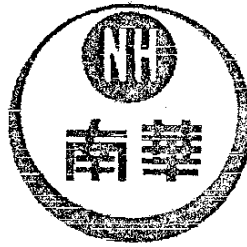
15. In the figure below, not drawn to scale, ABCD is a parallelogram and DCE is a straight line. Calculate $\angle ABE$.



- ① 32°
- ② 86°
- ③ 148°
- ④ 150°

()

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NAN HUA PRIMARY SCHOOL
SEMESTRAL ASSESSMENT 2 - 2007
PRIMARY 5

MATHEMATICS
(BOOKLET B)

20 Short-answer questions (30 marks)

13 Long-answer questions (50 marks)

Total Time for booklets A and B: 2 hours 15 minutes

INSTRUCTIONS TO CANDIDATES

1. Write your Index No. in the bracket given next to your name.
2. Do not turn over this page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Write your answers in this booklet.

Marks Obtained

Section B		/ 30
Section C		/ 50
Total		/ 80

Name : _____ ()

Class : P 5 _____

Date : 25 October 2007

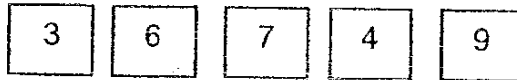
Parent's Signature : _____

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Section B (30 marks)

Questions 16 to 25 carry 1 mark each. Write your answers in the spaces provided.
Give your answers in the units stated. (10 marks)

16. Arrange the cards below to form the greatest 5-digit number that is smaller than 75 000



Ans: _____

17. $\frac{5}{12} + \frac{5}{12} + \frac{5}{12} + \frac{5}{12} = \frac{5}{12} + \frac{5}{12} \times \square$.

Find the missing number in the box.

Ans: _____

18. Find the value of $150 - 4 \times 5 \div 10 + 4 =$ _____.

Ans: _____

19. The average of 7 numbers is 14.86. Find the sum of the numbers.

14.9

Ans: _____

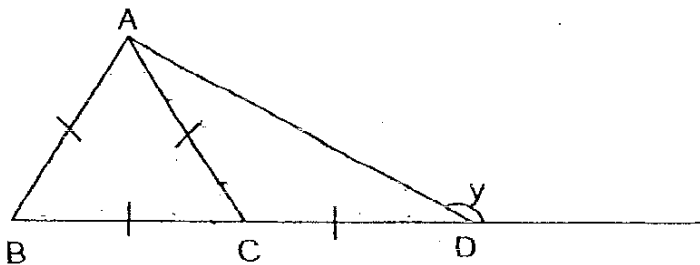
20. Jenna bought $3\frac{2}{5}$ kg of squid. Salha bought $1\frac{1}{4}$ kg more squid than Jenna. How many kilograms of squid did Salha buy altogether? Express your answer as a mixed number.

Ans: _____ kg

21. Linda baked a cake. She ate $\frac{1}{4}$ of it and shared the rest among 9 of her friends. What fraction of the cake did each of her friends get?

Ans: _____

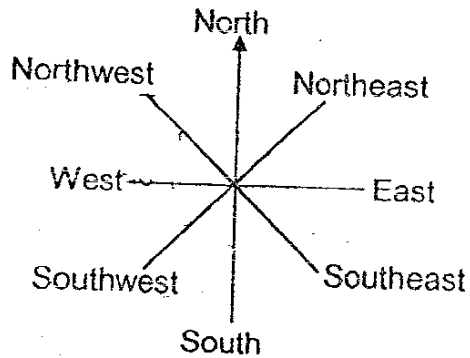
22. ABC is an equilateral triangle.
ACD is an isosceles triangle.
Find $\angle y$.



150

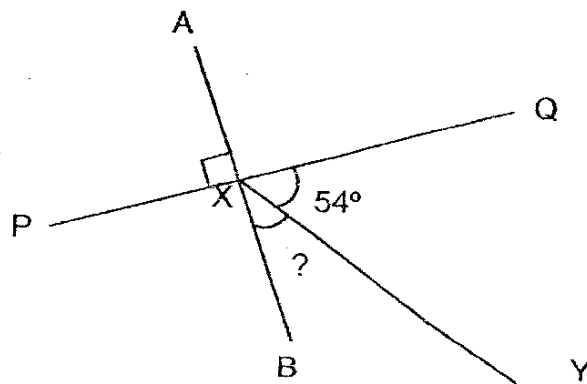
Ans: _____°

23. Samuel is facing northwest after turning 135° clockwise. In which direction was she facing at first?



Ans: _____

24.



In the figure above, not drawn to scale, AB, PQ and XY are straight lines. $\angle AXP$ is a right angle and $\angle YXQ = 54^\circ$. Find the value of $\angle BXY$.

Ans: _____^o

25. Felicia has 65 stickers. She has 30 more stickers than Mary. Express the number of stickers Felicia has as a percentage of the total number of stickers.

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Ans: _____

Questions 26 to 35 carry 2 marks each. Show your workings 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. (20 marks)

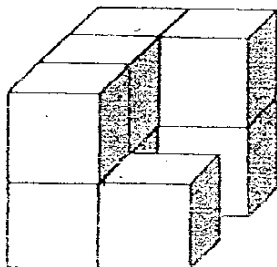
26. ~~Felicia~~^{Felix} had \$75. He spent $\frac{1}{5}$ of the money on textbooks and $\frac{2}{3}$ of his money on a bag. How much money did he spend altogether?

Ans: \$ _____

27. Patricia and Melissa share some lollipops in the ratio of 7 : 5. After Patricia has given Melissa 8 lollipops, they have the same number of lollipops. How many lollipops do they have altogether?

Ans: _____ lollipops

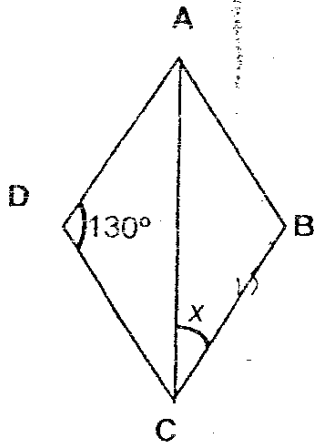
28. The total volume of the cubes shown below is 243 cm^3 . What is the length of each side of the cube?



152

Ans: _____ cm

29. ABCD is a rhombus not drawn to scale. Find $\angle x$.



Ans: _____ $^\circ$

30. The perimeter of a rectangle is 56cm. The ratio of its length to its breadth is 5 : 2. Find its breadth.

Ans: _____ cm

31. Betty, Candy and Dora saved \$94 in total. Betty and Candy together saved \$59. Candy and Dora together saved \$58. How much did Candy save?

Ans: \$ _____

32. Tariq was given one large pizza. He ate $\frac{1}{3}$ of it and gave $\frac{2}{5}$ of the remainder equally to his four friends. What fraction of the pizza did each friend receive?

Ans: _____

33. Fatimah paid \$612 for a video camera and an iron. The video camera costs 5 times as much as an iron. Find the cost of the video camera.

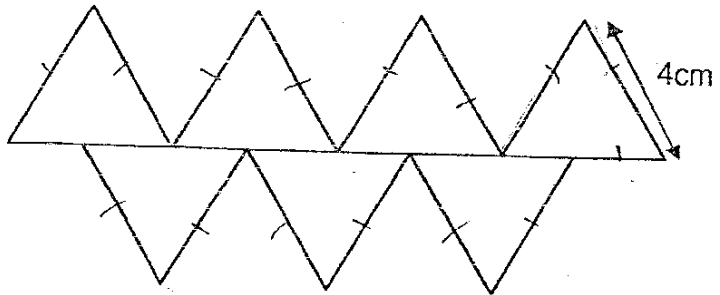
Ans: \$ _____

34. In a class of 30 boys and 20 girls, $\frac{1}{10}$ of the boys and $\frac{1}{4}$ of the girls like to watch cartoons. What fraction of the class ~~love~~
like to watch cartoons? Give your answer in the simplest form.

15%

Ans: _____

35. The figure is made up of seven similar equilateral triangles. What is the perimeter of the figure?

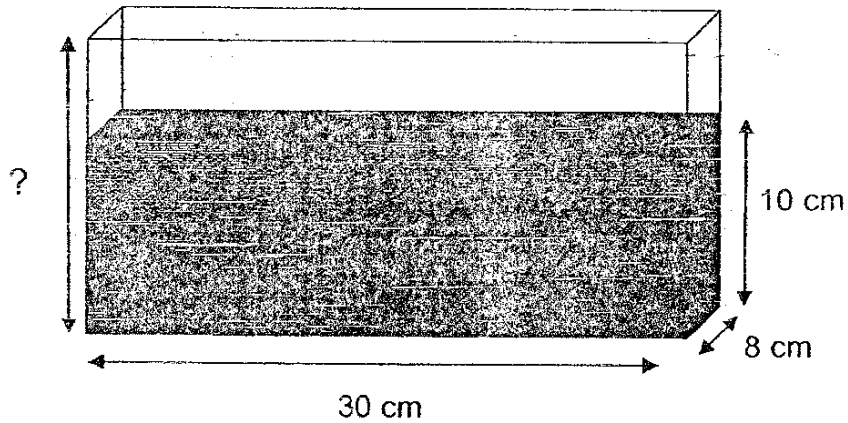


Ans: _____ cm

Section C (50 marks)

For questions 36 to 48, show your workings 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.

36. The tank shown below is $\frac{5}{7}$ filled with water.



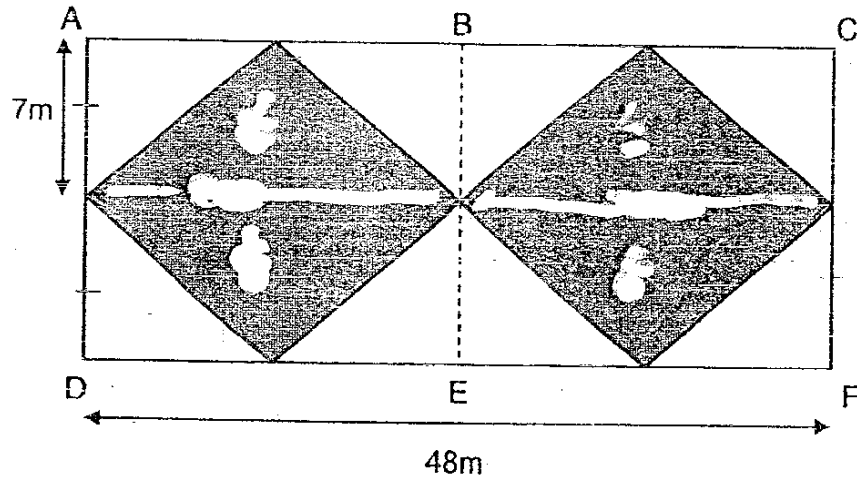
- (a) What is the height of the tank?
(b) How much **more** water is needed to fill up the rest of the tank?

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Ans : (a) _____ [2m]

(b) _____ [1m]

37. The figure ACFD shown below is divided into 2 equal parts. $AB = BC$. What is the area of the shaded parts given that they are identical to each other?



Ans : _____ [3m]

38. Hermione had 193 stamps. She gave 43 of them to Ron and gave 14% of the remainder to Fred. How many stamps had she left?

157

Ans : _____ [3m]

39. The average number of patrons in cinemas A, B, C and D is 350. There are 750 patrons in cinemas A and B. If there are 86 more patrons in cinema C than in cinema D, how many patrons are there in cinema C?

Ans : _____ [3m]

40. At Bake Bitez bakery, the price of one fresh loaf of bread is \$1. However, if there are leftovers, each of these loaves is sold \$0.40 cheaper on the next day. The table below shows the number of loaves baked and sold over two days. On August 2nd, all loaves were sold. Find the total earnings for the two days.

Day	Number of loaves baked	Total number sold
August 1 st	90	62
August 2 nd	90	118

158

Ans : _____ [3m]

41. A full tank of petrol normally costs \$60. The table below shows the discounts offered by 2 petrol stations.

Petrol Station	Discounts Offered
A	15%
B	10% + \$2 cash discount

If Mdm Lim chooses to pump \$60 worth of petrol at the station that has a greater overall discount, how much will she save?

159

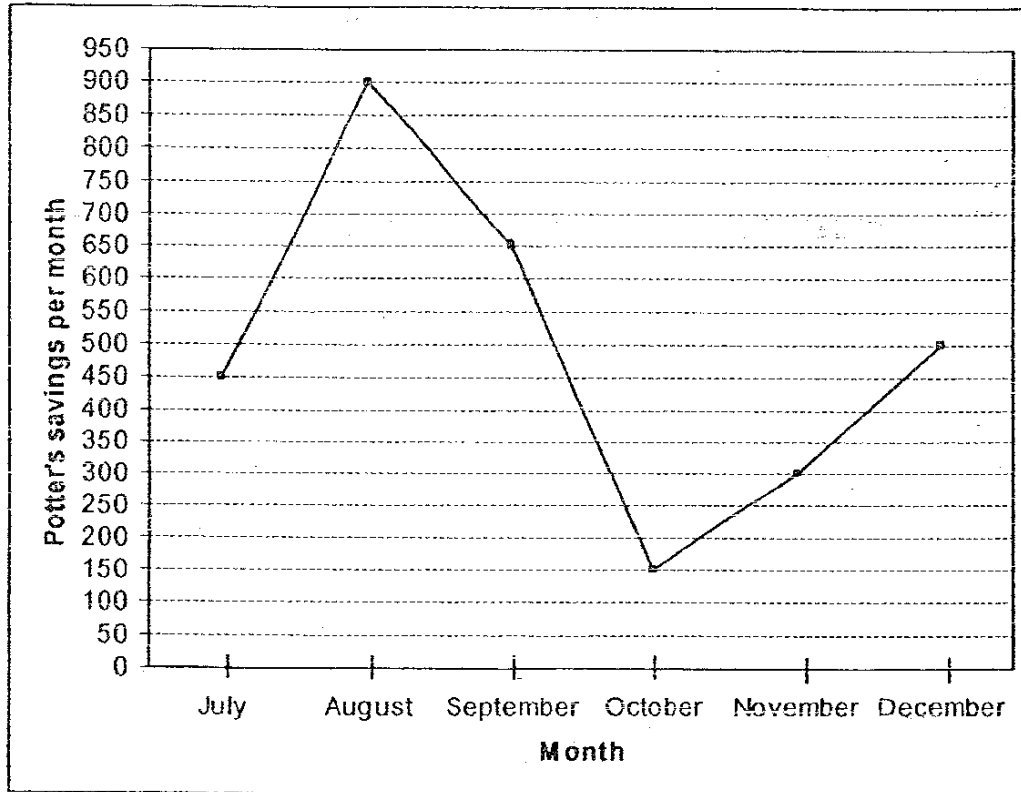
Ans : _____ [3m]

42. Alice and Bernard had 160 erasers altogether. Alice gave $\frac{1}{4}$ of her erasers to Carl and Bernard gave 27 of his erasers to Carl. Then both Alice and Bernard had the same number of erasers left. How many erasers did Bernard have at first?

160

Ans : _____ [4m]

43. The following line graph shows Potter's monthly savings from the month of July to December. Study the graph carefully and answer the questions below.

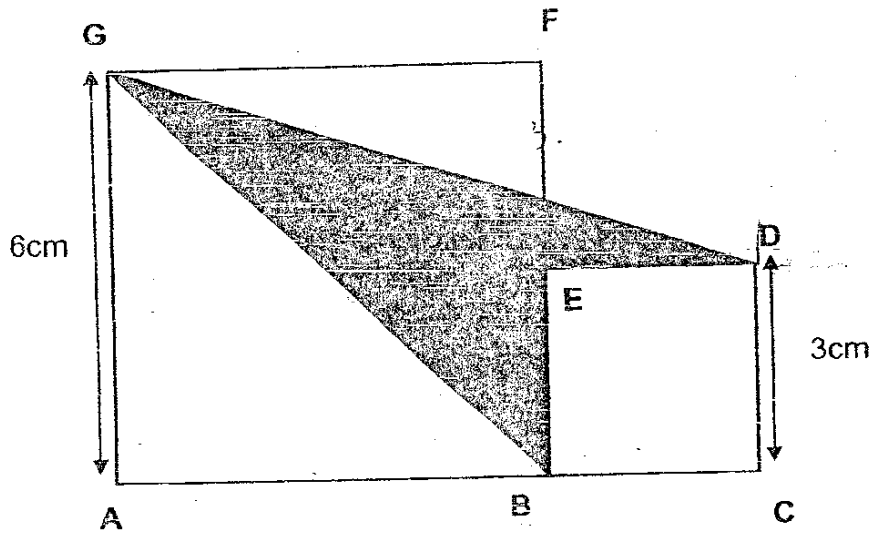


- (a) How much did Potter save from **July** to **November**?
- (b) Potter earns \$1 500 a month. What percentage of the salary did he save in the month of December? Round off your answer to 2 decimal places.

Ans: (a) _____ [2m]

(b) _____ [2m]

44. ABFG and BCDE are squares (not drawn to scale).
Find the area of the shaded region.



162

Ans : _____ [4m]

/ 4 marks

45. The ratio of the number of pears to the number of mangoes in Basket A and in Basket B are 2 : 1 and 2 : 7 respectively. Basket A has $\frac{2}{3}$ times as many fruits as Basket B.

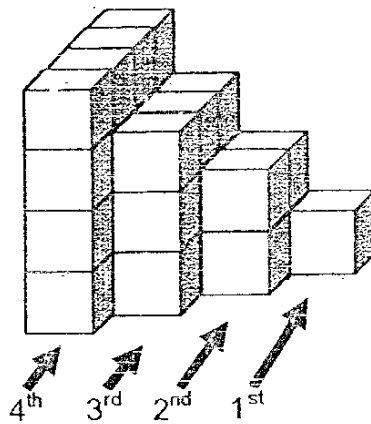
(a) Find the ratio of the number of pears in Basket B to the number of pears in Basket A.

(b) When 18 mangoes are moved from Basket B to Basket A, the ratio of the number of pears to the number of mangoes in Basket A becomes 8 : 7. How many mangoes are there in Basket A now?

Ans : (a) _____ [2m]

(b) _____ [3m]

46. Study the solid figure below.



- (a) How many unit cubes are needed to build the solid figure shown above?
- (b) More layers are added to the solid.
Complete the table below.

Layers	1 st	2 nd	3 rd	4 th	5 th	9 th
Number of unit cubes	1	4	9	16	(b) _____	(b) _____

- (c) Find the number of layers if 225 cubes are used.

164

Ans : (a) _____ [1m]

(b) Fill in the table above [2m]

(c) _____ [2m]

47. James has 40% as many game cards as Sean. Sean has 80% as many game cards as Willie. James and Sean have 168 game cards altogether.

- (a) How many game cards does Willie have?
- (b) How many more game cards does Willie have than James?

165

Ans : (a) _____ [3m]

(b) _____ [2m]

48. Melvin and Philip have a collection of coins from America and Europe. Melvin and Philip have an equal number of coins from America. $\frac{4}{5}$ of Philip's coins are from America and $\frac{1}{13}$ of Melvin's coins are from Europe. Given that both of them have a total of 12 coins from Europe, how many coins does each of them have?

166

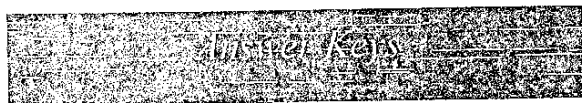
Ans : Melvin has _____ coins

Philip has _____ coins

[5m]

/ 5 marks

Nan Hua Primary School
Primary 5 Maths SA2 Exam (2007)



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

16. 4963

17. 3

18. 152

19. 104.02

20. $4\frac{13}{20}$

21. $\frac{1}{12}$

22. 150°

23. South

24. 36°

25. 65%

26. \$65

27. 96

28. 3cm

29. 25°

30. 8cm

31. \$23

32. $\frac{1}{15}$

33. \$510

34. $\frac{4}{25}$

35. 60cm

36a. $\frac{5}{7}$ of tank = $30\text{cm} \times 8\text{cm} \times 10\text{cm} = 2400\text{cm}^3$

$\frac{1}{7}$ of tank = $2400\text{cm}^3 \div 5 = 480\text{cm}^3$

$\frac{1}{7}$ of height = $30\text{cm} \times 8\text{cm} \times 2\text{cm} = 480\text{cm}^3$

Height of tank = $2\text{cm} \times 7 = 14\text{cm}$

The height of the tank is 14cm

36b. Remainder height = $14\text{cm} - 10\text{cm} = 4\text{cm}$
 am. Wat. Nee = $30\text{cm} \times 8\text{cm} \times 4\text{cm} = 960\text{cm}^3$
 960cm^3 more water is needed.

37. $48\text{m} \div 2 = 24\text{m}$

$\frac{1}{2}$ of shaded = $\frac{1}{2} \times 24\text{m} \times 7 = 84\text{m}^2$

Shaded = $84\text{m}^2 \times 2 = 168\text{m}^2$

Total shaded = $168\text{m}^2 \times 2 = 336\text{m}^2$

The area is 336m^2

38. Ron = 43

Herm = $193 - 43 = 150$

Left = $150 \times (100\% - 14\%) = 129$

Hermione had 129 stamps left.

39. Total = $350 \times 4 = 1400$

C & D total = $1400 - 750 = 650$

2 units = $650 - 86 = 564$

1 unit = 282

Cinema = $282 + 86 = 368$

There are 368 patrons in Cinema C

40. August 1st

62 fresh loaves = $62 \times \$1 = \62

August 2nd

Left over = $90 - 62 = 28$

mo from left = $28 \times (\$1.00 - 0.40) = \16.80

fresh loaves's money = $90 \times \$1 = \90

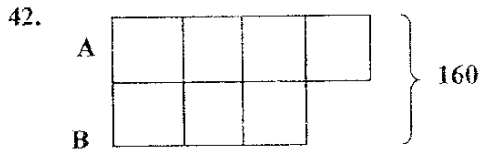
total earned = $\$(62 + 90 + 16.80) = \168.80

The total earning is \$168.80

41. Petrol Station A
 She pays = $\$60 \times 85\% = \51

Petrol Station B
 She pays = $\$60 \times 90\% = \52

A = \$51 (cheaper)
 B = \$52
 $\$60 - \$51 = \$9$
 She will save \$9



7 units = $160 - 2 = 133$
 1 unit = 19
 Bernard at first = $19 \times 3 + 27 = 84$
 Bernard had 84 erasers at first.

43a. Total saving from July to Nov = $\$(450 + 900 + 650 + 150 + 300)$
 = \$2450
 Potter saved \$2450

43b. 33.33%
 He save 33% of his salary.

44a. Area of whole figure including added part = $6\text{cm} \times 9\text{cm} = 54\text{cm}^2$
 Area of GBA = $\frac{1}{2} \times 6\text{cm} \times 6\text{cm} = 18\text{cm}^2$
 Area of GZD = $\frac{1}{2} \times 9\text{cm} \times 3\text{cm} = 13.5\text{cm}^2$
 Area of EDBC = $3\text{cm} \times 3\text{cm} = 9\text{cm}^2$
 Area of shaded region = $(54 - 18 - 13.5 - 9)\text{cm}^2$
 = 13.5cm^2
 The area is 13.5cm^2

45a. 1 : 2

45b. 42 mangoes

46a. $1 + 4 + 9 + 16 = 30$
30 cubes are needed.

46b. 25, 81

46c. $15 \times 15 = 225$
There are 15 layers

47a. 150 cards

47b. 102 cards

48. 4 units = 12
1 unit = 3

Melvin = $3 \times 15 = 45$

Philip = $13 \times 3 = 39$

Melvin has 45 coins

Philip has 39 coins