

NANYANG PRIMARY SCHOOL
SECOND SEMESTRAL EXAMINATION
2009

PRIMARY 5
MATHEMATICS
PAPER 1

DURATION: 50 MINUTES

Booklet A	/ 20
Booklet B	/ 20

Paper 1 Total: / 40

Name: _____ ()

Class: Primary 5 ()

Date: 29 October 2009

Parent's Signature: _____

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.

FOLLOW ALL INSTRUCTIONS CAREFULLY.

ANSWER ALL QUESTIONS.

YOU ARE NOT ALLOWED TO USE A CALCULATOR.

PAPER 1 (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 oval (1, 2, 3 or 4) on the Optical Answer Sheet.

(20 marks)

- 1 Mary had 40 pupils in her Art class. She was given 24 kg of plasticine to be shared among her pupils. How many grams of plasticine did each child get?

- (1) 6 g
- (2) 60 g
- (3) 600 g
- (4) 6 000 g

- 2 What is $\frac{5}{2} \times \frac{3}{5}$?

- (1) $\frac{6}{25}$
- (2) $1\frac{1}{2}$
- (3) $2\frac{3}{10}$
- (4) $4\frac{1}{6}$

- 3 Xiao Fang bought $7\frac{1}{3}$ l of milk from a farmer. She poured the milk equally into 4 jugs. How much milk was there in each jug?

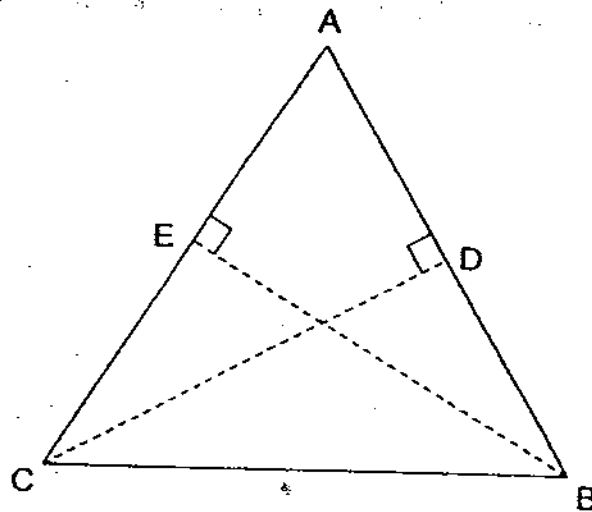
(1) $1\frac{5}{6}$ l

(2) $3\frac{1}{3}$ l

(3) $7\frac{1}{12}$ l

(4) $8\frac{1}{3}$ l

- 4 Study the triangle below.



In the given diagram, $AC \perp BE$ and $AB \perp CD$. Which of the following lines are bases to BE and CD respectively?

- (1) AB and AE
(2) AC and AB
(3) AE and AD
(4) AC and AD

- 5 Raju bought some red, white and yellow roses from a florist. The ratio of the number of red roses to the number of yellow roses was 6 : 7. The ratio of the number of white roses to the number of yellow roses was 5 : 3. Find the ratio of the number of red roses to the number of white roses to the number of yellow roses.

- (1) 18 : 21 : 35
- (2) 18 : 35 : 21
- (3) 30 : 21 : 35
- (4) 30 : 35 : 21

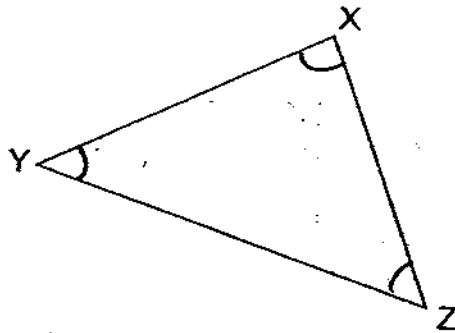
- 6 Masa bought 30 files for \$64.20. What was the cost of each file?

- (1) \$2.14
- (2) \$3.42
- (3) \$21.40
- (4) \$34.20

- 7 Express $\frac{9}{150}$ as a percentage.

- (1) 6%
- (2) 9%
- (3) 3%
- (4) 18%

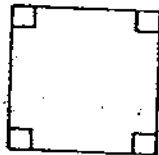
- 8 The figure below shows Triangle XYZ, which is not drawn to scale.
 $\angle YXZ = 86^\circ$ and $\angle XYZ = 47^\circ$.



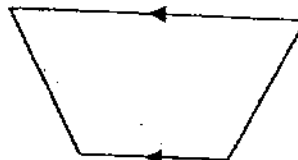
Which of the following statements is **true** about Triangle XYZ?

- (1) XYZ is an equilateral triangle.
- (2) Length XY is equal to length XZ.
- (3) The sum of $\angle XYZ$ and $\angle XZY$ is 90° .
- (4) None of the angles in triangle XYZ is equal.

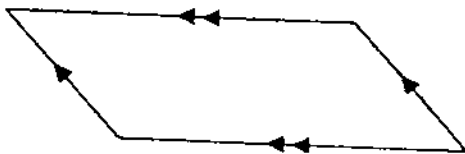
- 9 The following figures are not drawn to scale.



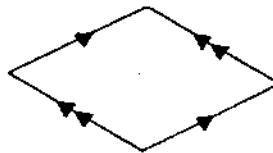
A



B



C

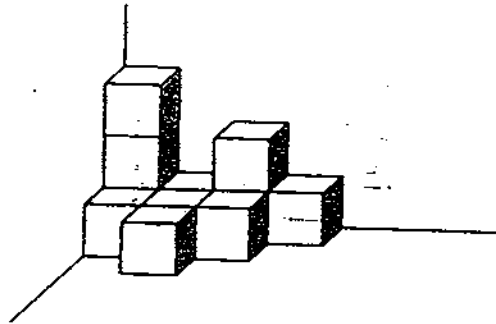


D

Which of the above figures is/are parallelogram(s)?

- (1) B only
- (2) C only
- (3) A, B and D only
- (4) A, C and D only

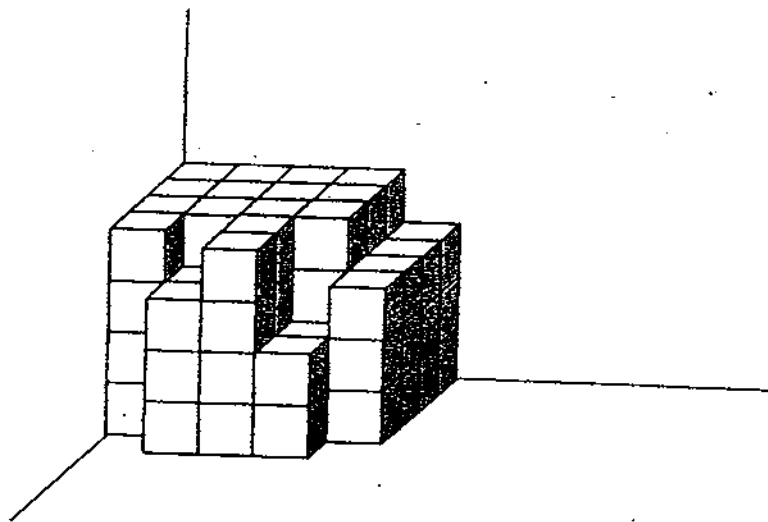
- 10 The solid below is made up of identical cubes of edges 2 cm. What is its volume?



- (1) 11 cm^3
- (2) 22 cm^3
- (3) 72 cm^3
- (4) 88 cm^3
- 11 Stephan and Ravi shares 148 trading cards. If Stephan has 52 cards more than Ravi, what is the ratio of the number of Stephan's cards to the number of Ravi's cards?
- (1) 38 : 25
- (2) 25 : 38
- (3) 25 : 12
- (4) 12 : 25

- 12 Jojo was given a sum of money for her shopping. She bought 6 pens at \$1.30 each and a pencil case for \$2.70. If she had \$4.50 left, how much money did she have at first?
- (1) \$6.00
 - (2) \$8.50
 - (3) \$14.00
 - (4) \$15.00
- 13 Mr Yap bought 8 long-sleeved shirts and 2 short-sleeved shirts. The average cost of the long-sleeved shirts is \$75. The total cost of the short-sleeved shirts is \$120. Find the average cost of one shirt.
- (1) \$67.50
 - (2) \$72.00
 - (3) \$84.00
 - (4) \$97.50
- 14 In a box of chocolates, 32% of the chocolates were dark chocolates and the rest were white chocolates. 25% of the dark chocolates and 50% of the white chocolates melted. What percentage of the box of chocolates had melted?
- (1) 25%
 - (2) 34%
 - (3) 42%
 - (4) 58%

- 15 Ann is trying to form a 5-cm cube using 1-cm cubes as shown below.



How many more 1-cm cubes does she need to form the 5-cm cube?

- (1) 18
- (2) 26
- (3) 35
- (4) 43

Name: _____ () Class: Pr 5 ()

P5 SA2 2009

PAPER 1 (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.

(10 marks)

- 16 Write 254 009 in words.

- 17 Find the value of $108 \div 6 - 3 \times 4 + 10$.

Ans: _____

- 18 The ratio of the length of a rectangle to its breadth is 8 : 5. If the length is 21 cm longer than its breadth, what is the length of the rectangle?

Ans: _____ cm

- 19 Estimate the product of 35 951 and 40 by first rounding off the bigger number to the nearest thousand.

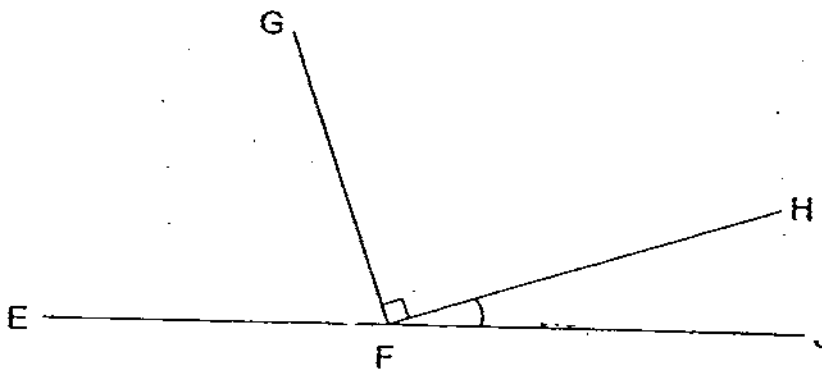
$$36000 \times 40 = 1440000$$

Ans: _____

- 20 Wen Qi completed $\frac{3}{8}$ of his Social Studies project. What percentage of his Social Studies project did he complete?

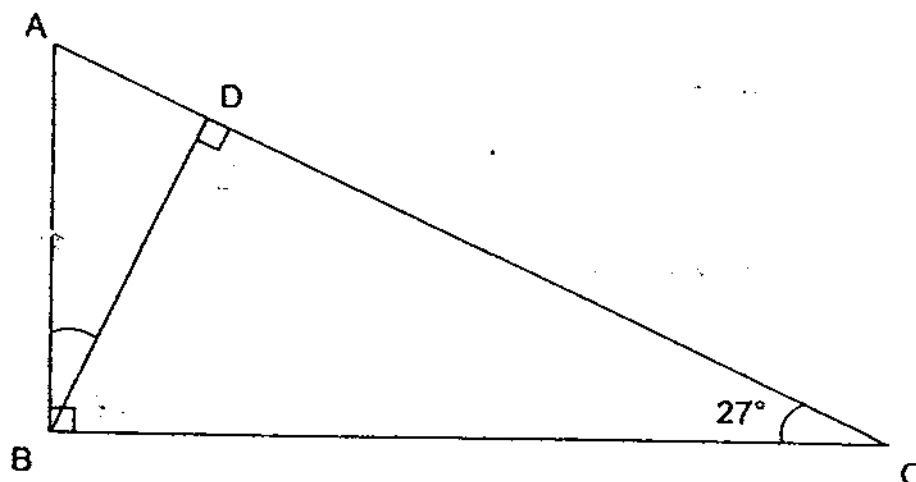
Ans: _____ %

- 21 The figure below is not drawn to scale. $\angle GFH = 90^\circ$. The ratio of $\angle EFG : \angle HFJ$ is 4 : 1. Find $\angle HFJ$.



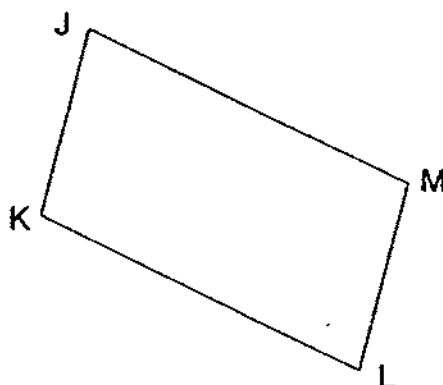
Ans: _____ °

- 22 The figure below is not drawn to scale. $\triangle ABC$ and $\triangle BCD$ are right-angled triangles. $\angle ACB = 27^\circ$. Find $\angle ABD$.



Ans: _____°

- 23 In the figure below, not drawn to scale, JKLM is a parallelogram. Given that $\angle KLM$ is $\frac{5}{7}$ of $\angle JKL$, find $\angle JKL$.



Ans: _____°

- 24 The perimeter of the base of a cuboid is 32 m. The breadth of the cuboid is 6 m and its height is 4 m. What is the volume of the cuboid?

Ans: _____ m³

- 25 A rectangular container had a square base of sides 8 cm. It was completely filled with chemical to a height of 20 cm. During an experiment, $\frac{3}{4}$ of the chemical was accidentally spilled out. What was the volume of the chemical left in the container?

Ans: _____ cm³

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 spaces provided. For questions which require units, give your answers in the units stated.

(10 marks)

- 26 What is the value of $(7 \times 6 + 3) \div 9 \times (48 \div 12)$?

Ans: _____

- 27 A jug can hold $5\frac{5}{6}$ l of water. How much water can 7 such jugs hold?
Express your answer as a mixed number.

Ans: _____ l

- 28 Find the missing number in the box below.

$$21 : 21 = \square : 45$$

Ans: _____

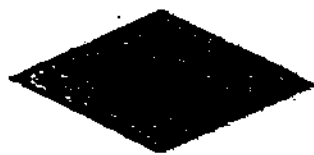
- 29 Dennis cycles to school and back home on **weekdays**. The distance between his house and his school is 2.07 km. What is the total distance he cycles in a week? Express your answer in metres.

Ans: _____ m

- 30 At a graduation party, each graduate brought along either 1 guest or 2 guests. The ratio of the number of graduates to the number of guests is 5 : 8. What fraction of the graduates brought along 2 guests each?

Ans: _____

END OF PAPER



NANYANG PRIMARY SCHOOL
SECOND SEMESTRAL EXAMINATION
2009

PRIMARY 5
MATHEMATICS
PAPER 2

DURATION: 1 HOUR 40 MINUTES

Paper 2 Total	/ 60
GRAND TOTAL	/ 100

Name: _____ ()

Class: Primary 5 ()

Date: 29 October 2009

Parent's Signature: _____

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PAPER 2

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)

- 1 Ali, Bala and Charlie shared 496 stickers. Charlie received 56 stickers less than Ali. Bala had four times as many stickers as Ali. How many stickers did Ali receive?

Ans: _____

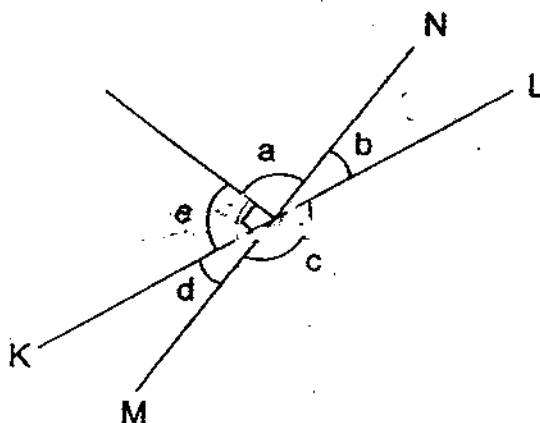
- 2 Jasmine spent $\frac{1}{3}$ h reading a book on Monday. She continued reading the same book for $\frac{3}{4}$ h on Tuesday. She finished reading the whole book on Wednesday. The total amount of time Jasmine spent on reading was $1\frac{5}{6}$ h. How long did she spend reading on Wednesday?

Ans: _____ h

- 3 Cindy and Juli baked 405 cookies altogether. The ratio of the number of cookies Cindy baked to the number of cookies Juli baked was 8 : 19. How many more cookies did Juli bake than Cindy?

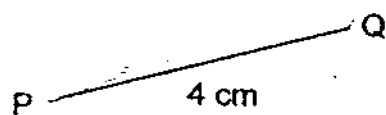
Ans: _____

- 4 In the figure below, not drawn to scale, KL and MN are straight lines. $\angle d + \angle e = 90^\circ$ and $\angle b + \angle c + \angle d = 201^\circ$. Find $\angle e$.



Ans: _____°

- 5 In the space below, draw and label a parallelogram PQRS in which $PQ = 4\text{ cm}$, $QR = 6\text{ cm}$ and $\angle QPS = 40^\circ$. The line PQ has been drawn for you.



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)

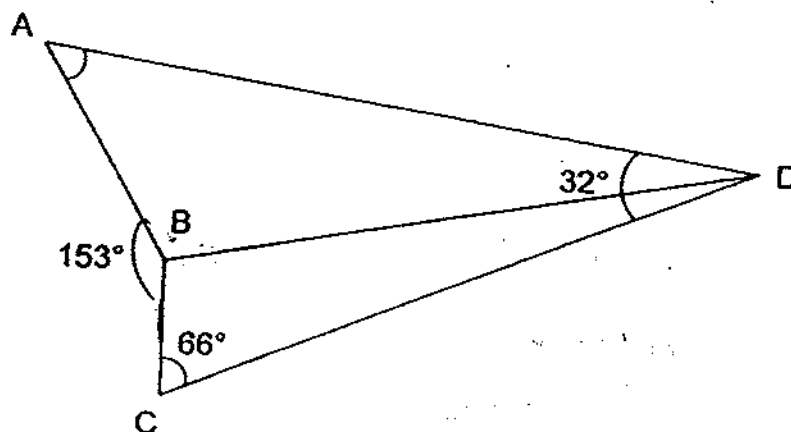
- 6 Rosma bought 5 identical key chains and 4 identical bookmarks for \$11.10. The cost of 2 key chains and a bookmark was \$3.90. What was the cost of one key chain?

Ans: _____ [3]

- 7 A cubical tank of edges 64 cm was a quarter filled with water. When some water was poured out from the tank, it became $\frac{3}{16}$ filled with water. How much water was poured out from the tank?

Ans: _____ [3]

- 8 In the figure below, not drawn to scale, $\angle ADC = 32^\circ$, $\angle BCD = 66^\circ$ and $\angle ABC = 153^\circ$. Find $\angle BAD$.

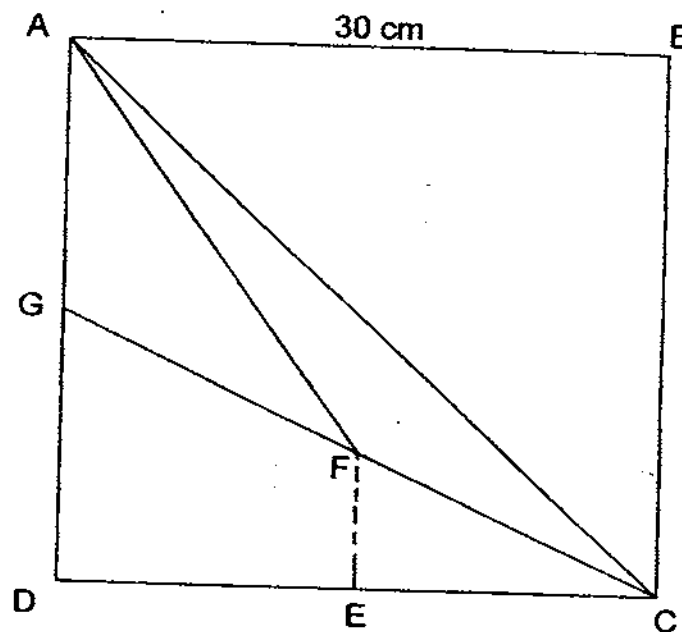


Ans: _____ [3]

- 9 The usual price of a sofa was \$2800. During the Great Singapore Sale, the sofa was sold at a discount of 30%. Members were given an additional 10% discount on the discounted sale price. After which, one had to pay 7% GST on the final discounted price. How much did a member have to pay for the sofa at the sale?

Ans: _____ [3]

- 10 Study the diagram below. ABCD is a square with sides 30 cm. GFC is a straight line and $DG = DE = EC$. Find the area of Triangle ACF.



Ans: _____ [4]

- 11 A box contained some blue pens and red pens in the ratio of 11 : 3. After 28 blue pens were removed from the box and 7 red pens were added in the box, the ratio of the number of blue pens to the number of red pens in the box was 7 : 4. How many pens were there in the box at first?

Ans: _____ [4]

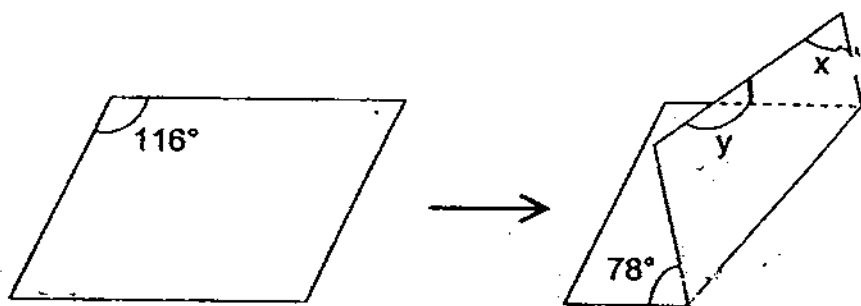
- 12 Zubir took 4 days to travel from Town A to Town B. He travelled $\frac{1}{5}$ of the journey on the first day and $\frac{2}{5}$ of the remaining journey on the second day. On the third day, he travelled $\frac{1}{3}$ of the remaining journey and finally reached Town B after travelling another 304 km on the fourth day. Find the distance between Town A and Town B.

Ans: _____ [4]

- 13 A piece of paper in the original shape of a parallelogram was folded as shown below.

- (a) Find $\angle x$.
(b) Find $\angle y$.

(Figure is not drawn to scale.)



Ans: (a) _____ [2]

(b) _____ [2]

- 14 Joanne bought 7 balloons from a carnival stall. After she bought another 4 more balloons at \$9.80 each, the average cost of the balloons increased by \$0.60. What was the total cost of the balloons?

Ans: _____ [4]

- 15 Ivan filled a rectangular container which had a base area of 40 cm^2 and a height of 25.2 cm with coloured dye. Then, he placed 8 identical metal cubical blocks into this container. As a result, the height of the coloured dye in the rectangular container increased by 1.6 cm .

- (a) What was the length of each side of the metal cubical block?
- (b) After Ivan removed the metal cubical blocks from the container, he poured all the coloured dye from the container to fill bottles of capacity 0.35 litres . What was the maximum number of bottles he could fill?

Ans: (a) _____ [3]

(b) _____ [2]

- 16 Ali, Bala, Clyde and Dingyi shared a box of pens. Ali received 20% of the total number of pens which Bala, Clyde and Dingyi received altogether. Bala received 50% of the total number of pens which Ali, Clyde and Dingyi received altogether. Clyde received 80% of the total number of pens which Ali, Bala and Dingyi received altogether. Dingyi received 6 pens. How many pens were in the box at first?

Ans: _____ [5]

- 17 Jolene and Penny had a sum of money. Jolene gave Penny 0.4 of her money. Penny then gave Jolene $\frac{1}{2}$ of her money. In the end, Jolene had three times the amount of money that Penny had. If Jolene gave Penny \$125 more than what Penny gave Jolene, how much money did Jolene have at first?

Ans: _____ [5]

- 18 Mrs Raju bought 20 bottles of milk and 5 boxes of cornflakes from the supermarket. If she had bought these items at 20% discount, the amount of money she saved could buy another 3 more boxes of cornflakes at the usual price. The usual price of a bottle of milk was \$2.15. What was the usual price of a box of cornflakes?

Ans: _____ [3]

END OF PAPER

Setters: Ho Choy Fong
Mohd Shari

Answer Ke

EXAM PAPER 2009

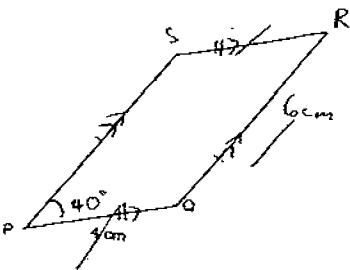
SCHOOL : NANYANG PRIMARY
SUBJECT : PRIMARY 5 MATHEMATICS

TERM : SA2

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

- 16) Two hundred and fifty-four thousand and nine 17) 16 18) 56cm
19) 1440000 20) 37.5% 21) 18° 22) 27° 23) 105° 24) 240m³
25) 320cm³ 26) 20 27) $40\frac{5}{6}$ 28) 35 29) 20700m 30) $\frac{3}{5}$

Paper 2

<p>1) $56 \times 5 = 280$ $6 \times \text{Charlie} \rightarrow 496 - 280 = 216$ $\text{Charlie} \rightarrow 216 \div 6 = 36$ $\text{Ali} \rightarrow 36 + 56 = 92$</p>	<p>2) $\frac{1}{3}h + \frac{3}{4}h = \frac{11}{12}h$ $\frac{15}{6}h - \frac{11}{12}h = \frac{3}{4}h$</p>
<p>3) $19 - 8 = 11$ $19 + 8 = 27$ $405 \div 27 = 15$ $15 \times 11 = 165$ cookies</p>	<p>4) $201^\circ - 180^\circ = 21^\circ$ $90^\circ - 21^\circ = 69^\circ$</p>
<p>5)</p> 	<p>6) \$1.50</p>

<p>7) $64\text{cm} \times 63\text{cm} \times 64\text{cm} = 262144\text{cm}^3$ $262144\text{cm}^3 \div 4 = 65536\text{cm}^3$ $262144\text{cm}^3 \div 16 = 16384\text{cm}^3$ $16384\text{cm}^3 \times 3 = 49152\text{cm}^3$ $65536\text{cm}^3 - 49152\text{cm}^3 = 16384\text{cm}^3$ $= 16384\text{ml}$</p>	<p>8) $180^\circ - 66^\circ = 114^\circ$ $207^\circ + 32^\circ = 239^\circ$ $239^\circ - 114^\circ = 125^\circ$ $\angle \text{BAD} \rightarrow 180^\circ - 125^\circ = 55^\circ$</p>
<p>9) $100\% - 30\% = 70\%$ $70\% \times \\$2800 = \\1960 $100 - 10\% = 90\%$ $90\% \times \\$1960 = \\1764 $7\% \times \\$1764 = \\123.48 $\\$1764 + \\$123.48 = \\$1887.48$</p>	<p>10) Total Area $\rightarrow 30\text{cm} \times 30\text{cm} = 900\text{cm}^2$ $\angle \text{ABC} \rightarrow \frac{1}{2} \times 30\text{cm} \times 30\text{cm} = 450\text{cm}^2$ $\angle \text{GDC} \rightarrow \frac{1}{2} \times 15\text{cm} \times 30\text{cm} = 225\text{cm}^2$ $\angle \text{AGF} \rightarrow \frac{1}{2} \times 15\text{cm} \times 15\text{cm} = 112.5\text{cm}^2$ $450\text{cm}^2 + 225\text{cm}^2 + 112.5\text{cm}^2$ $= 787.5\text{cm}^2$ $900\text{cm}^2 - 787.5\text{cm}^2 = 112.5\text{cm}^2$</p>
<p>11) 4 units $\rightarrow 28$ 1 unit $\rightarrow 7$ $11 + 3 = 14$ $7 \times 4 = 28$ pens</p>	<p>12) 8 units $\rightarrow 304$ $304 \div 8 = 38$ 25 units $\rightarrow (38 \times 25)\text{km} = 950\text{km}$</p>
<p>13) a) $180^\circ - 116^\circ = 64^\circ$ b) $78^\circ + 64^\circ = 142^\circ$ $180^\circ - 142^\circ = 38^\circ$ $180^\circ - 38^\circ = 142^\circ$</p>	<p>14) $\\$9.80 \times 4 = \\39.20 $11 \times \\$0.60 = \\6.60 $\\$39.20 - \\$6.60 = \\$32.60$ $\\$32.60 \div 4 = \\8.15 $\\$8.15 \times 7 = \\57.05 $\\$57.05 + \\$39.20 = \\$96.25$</p>
<p>15) a) 2cm b) 2</p>	<p>16) 108</p>
<p>17) $4 - 3 = 1$ 1 unit $\rightarrow \\$125$ 10 units $\rightarrow \\$125 \times 10 = \\1250</p>	<p>18) \$4.30</p>