**Maha Bodhi School**
**2018 Semestral Assessment 1**
**Primary 6**
**Mathematics**
**Paper 1**
(Booklet A)

Name : _____ (  )

Class : Primary 6 _____

Date : 4 May 2018

Total Duration for Booklets A and B: 1 hour

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**INSTRUCTIONS TO CANDIDATES:**

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

This booklet consists of **6** printed pages.

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 Shee
All diagrams are not drawn to scale. (20 mai

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1. 3 000 ÷ ☐ = 200

What is the missing number in the box?

(1) 4
(2) 40
(3) 4000
(4) 40 000

2. 2 boys shared 3 pizzas equally. How many pizzas did each boy get?

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

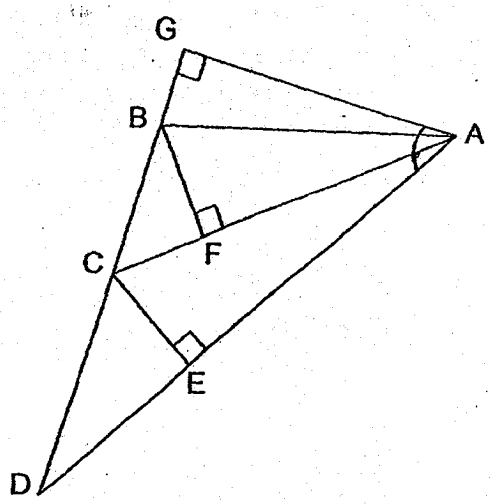
3. A clinic opens daily as follows.

How long is the clinic open each day?

| CLINIC HEAL OPENING HOURS |
|---|
| AM : 8.45 am to 12.00 pm |
| Lunch (From 12.00 pm to 1.00 pm) |
| PM : 1.00 pm to 3.30 pm |

(1) 2 h 30 min
(2) 3 h 15 min
(3) 5 h 45 min
(4) 6 h 45 min

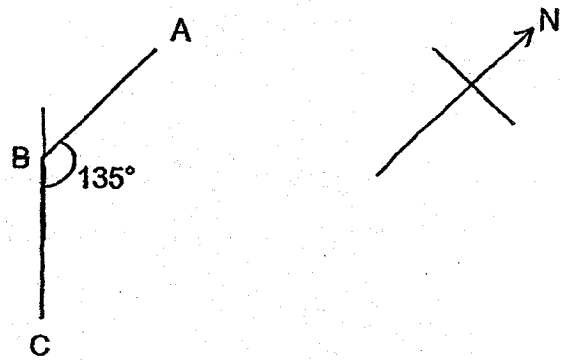
4.




In the figure above, GD is a straight line. Line BC is the base of Triangle ABC. Identify its corresponding height.

(1) AB
(2) AG
(3) BF
(4) CE

5. In the diagram below, A, B and C are 3 towns on a map. Town A is north of Town and $\angle$ ABC is 135°. In what direction is Town C from Town B?




(1) north
(2) north-east
(3) south
(4) south-east

6. David and Bala share some money.
For every $40 David receives, Bala receives $30.
David receives $24 more than Bala. How much money does Bala receive?

(1) $18
(2) $54
(3) $72
(4) $96

7. Express $\frac{1}{10}$ % as a decimal.

(1) 0.1
(2) 0.01
(3) 0.001
(4) 0.0001

8. Tom and Jane sat for a test. Tom scored 70 marks.
He scored 14 marks more than Jane. What was their average score?

(1) 42
(2) 56
(3) 63
(4) 77

9. The perimeter of a rectangle is 72 cm. The length of the rectangle is twice its breadth. Find its breadth.

(1) 12 cm
(2) 24 cm
(3) 36 cm
(4) 48 cm

10. During a race, 3 boys ran a distance of 480 metres each. The table below shows the time taken by each boy for the race. What is the average speed of the slowest boy?

| | Time Taken |
|---|---|
| Alan | 10 min |
| Ben | 8 min |
| Caleb | 12 min |

(1) 16 m/min
(2) 40 m/min
(3) 48 m/min
(4) 60 m/min

11. Peter took 3 hours to travel from Town P to Town Q. He travelled at an average spee of 60 km/h for the first 120 km. He then reduced his average speed by 20 km/h for the remaining journey. What was the distance between the 2 towns?

(1) 140 km
(2) 160 km
(3) 180 km
(4) 200 km

12. Petrol costs $1.20 per litre. A car needs 1 litre of petrol to travel 9 km. What is the cost of petrol needed for the car to travel 180 km?

(1) $20
(2) $24
(3) $150
(4) $216

13. The volume of water in Bottle X and Bottle Y is in the ratio 4 : 7. $\frac{1}{2}$ of the water fro Bottle X is poured into Bottle Y. $\frac{1}{3}$ of the water in Bottle Y is then poured into Bottle What is the new ratio of the amount of water in Bottle X to the amount of water in Bottl Y now?

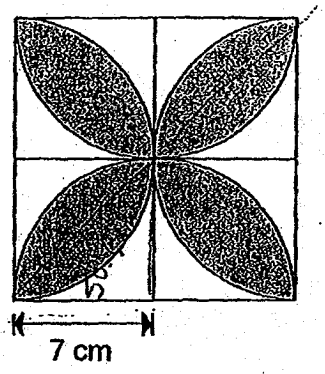
(1) 1 : 2
(2) 1 : 3
(3) 5 : 3
(4) 5 : 6

14. In 1 hour, Alden can make 6 identical bags. He can make 2 more such bags than Bernard, given the same time. At this rate, how long would the two of them take to make 280 such bags?

(1) 20 hours
(2) 28 hours
(3) 35 hours
(4) 70 hours

15. The figure below is made up of 8 identical quarter circles overlapping one another.

Find the area of the shaded part. Take $\pi = \frac{22}{7}$




(1) 112 $cm^2$

(2) 24.5 $cm^2$

(3) 38.5 $cm^2$

(4) 49 $cm^2$

**Maha Bodhi School**
**2018 Semestral Assessment 1**
**Primary 6**
**Mathematics**
**Paper 1**
(Booklet B)

Name : _____ (  )  Marks: ___/25

Class : Primary 6 _____

Date : 4 May 2018

Total Duration for Booklets A and B: 1 hour

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**INSTRUCTIONS TO CANDIDATES:**

1. Do not turn over this page until you are told to do so.
2. Follow all instructions carefully.
3. Answer all questions.
4. Write all your answers in this booklet.
5. The use of calculators is **NOT** allowed.

This booklet consists of **6** printed pages.

Questions **16** to **20** carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (5 marks)
All diagrams are not drawn to scale.

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16. Evaluate $90 \div (3 + 6) - 1 \times 2$.

Ans: _____

17. Find the value of $\frac{7}{8} \div 14$.

Give your answer as a fraction in the simplest form.

Ans: _____

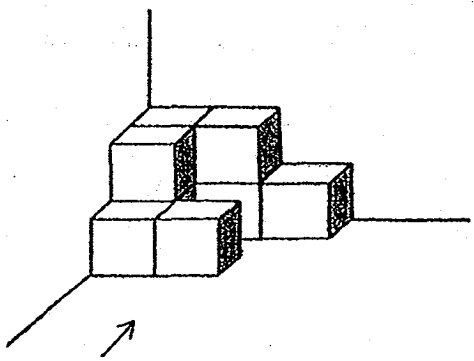
18. Express 0.012 as a fraction in the simplest form.

Ans: _____

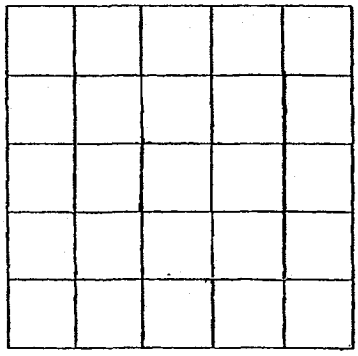


/ 3

19.




Draw the top view of the above solid.



20. The table shows the parking charges at a car park.

| PARKING CHARGES | |
|---|---|
| For the first hour | \$1.60 |
| For every additional $\frac{1}{2}$ hour or part thereof | \$0.60 |

James parked his car for 1 h 45 min. How much did he have to pay?

Ans: \$_____



/ 2

Questions **21** 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. (20 marks)
All diagrams are not drawn to scale.

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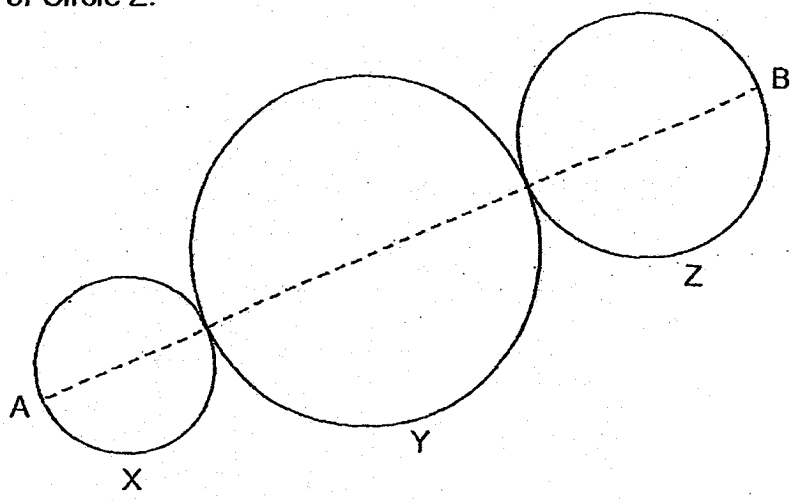
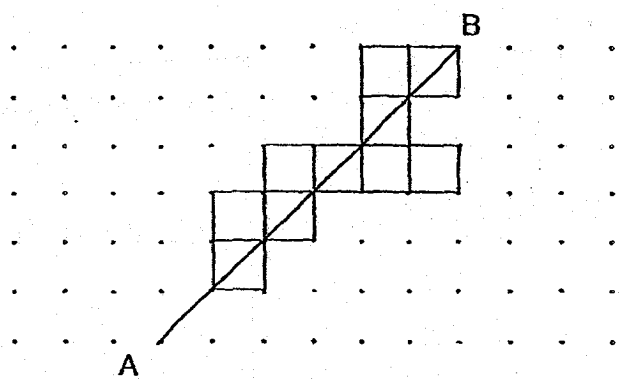
21. In the figure below, Line AB passes through the centres of 3 circles, X,Y and Z. The radii of Circles X and Y are 2.5 cm and 5 cm respectively. Given that AB is 22 cm, find the radius of Circle Z.




Ans:_____cm

22. The figure below shows 18 identical squares. What is the **least** number of squares that can be added so that Line AB becomes a line of symmetry?




Ans: _____squares

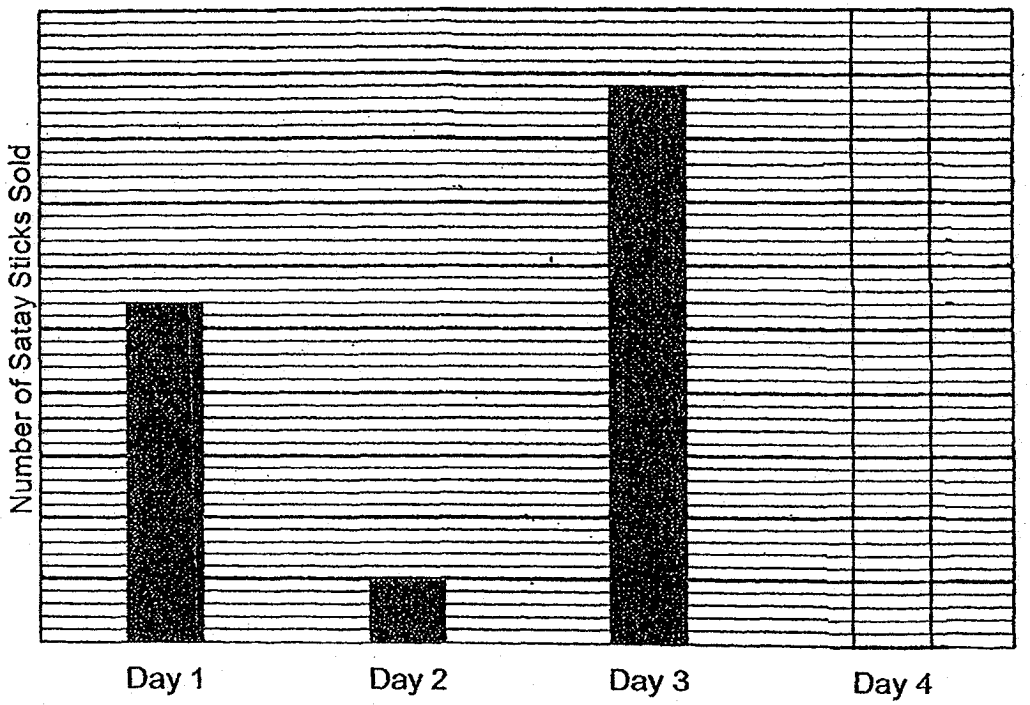


/ 4

23. The table below shows the total number of sticks of satay sold at a stall over 4 day

| | Day 1 | Day 2 | Day 3 | Day 4 |
|---|---|---|---|---|
| Number of sticks of satay sold | 540 | 100 | 880 | 620 |

Complete the bar graph below to show the number of sticks of satay sold on Day 4



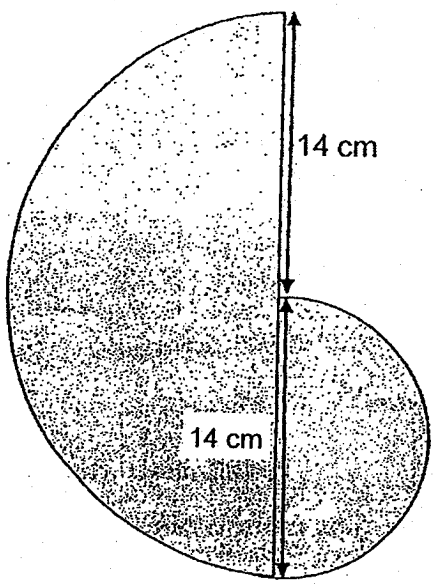

24. Richie is given an allowance of \$10*b* a week. He spends \$3*b* every week. How much does he save in 3 weeks? Give your answer in terms of b in the simplest form.

Ans: \$_____



/ 4

25. Find the perimeter of the figure shown below. Take $\pi = \frac{22}{7}$




Ans: _____ cm

26. Meili paid $126 for a dress after she was given a 40% discount.
What is the original price of the dress?

Ans: $_____

27. A train, 80 m long, travels through a tunnel at a constant speed of 19 m/s.
What is the length of the tunnel if the whole train takes 1 min 40 s to pass through it completely?

Ans: _____ m

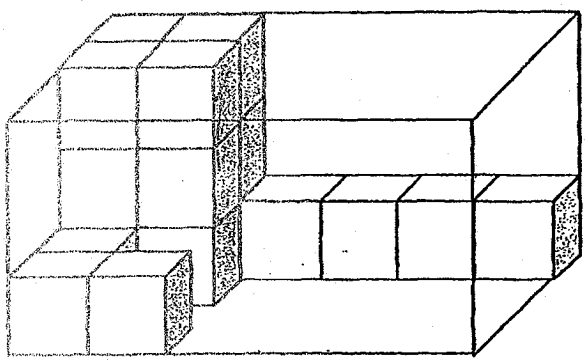


/ 6

28. Ming spent $\frac{1}{3}$ of his money on 2 mangoes and 5 pears. Each mango costs 3 times much as a pear. How many such pears could he buy with the rest of the money?

Ans: _____ pea

29. The figure below shows a rectangular glass box that is partially filled with unit cubes When the box is completely filled with unit cubes, how many cubes will not touch the glass box?



Ans: _____ cubes

30. The average of 3 numbers is 50. When one of the numbers is changed to 38, the average of the 3 numbers becomes 60. What is the number that was changed?

Ans: _____



/ 6

**Maha Bodhi School**
**2018 Semestral Assessment 1**
**Primary 6**
**Mathematics**
**Paper 2**

Name : _____ (  )

Class : Primary 6 _____

Date : 4 May 2018

Duration: 1 h 30 min

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**INSTRUCTIONS TO CANDIDATES:**

1. Do not turn over this page until you are told to do so.
2. Follow all instructions carefully.
3. Answer all questions.
4. Write your answers in this booklet.
5. The use of an approved calculator is expected, where appropriate.

| Paper | Booklet | Marks Obtained | Max Marks |
|---|---|---|---|
| 1 | A | | 20 |
| | B | | 25 |
| 2 | - | | 55 |
| Total | | | **100** |

Parent's signature: _____

This booklet consists of **13** printed pages.

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)
All diagrams are not drawn to scale.

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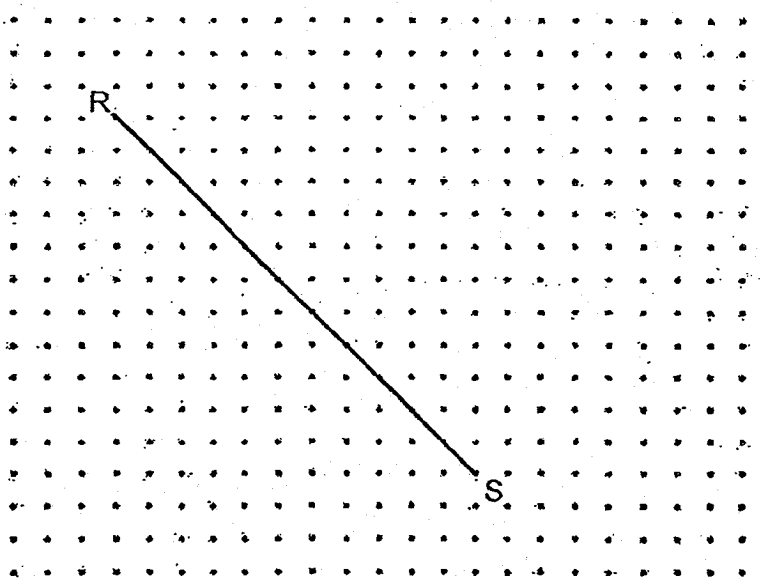
1. X is a point on RS. Draw and label a straight line XY that is perpendicular to RS.

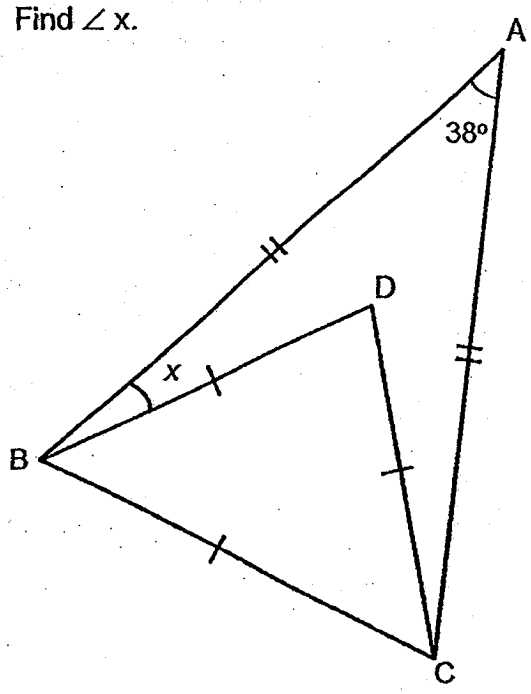



2. The ratio of the amount of money Raj had to the amount of money Ali had was 3 : 4. After Ali gave $52 to Raj, they had the same amount of money. How much did they have altogether?

Ans: $_____

/ 4

3. In the figure below, ABC is an isosceles triangle and BCD is an equilateral triangle
Find $\angle x$.




Ans: _____

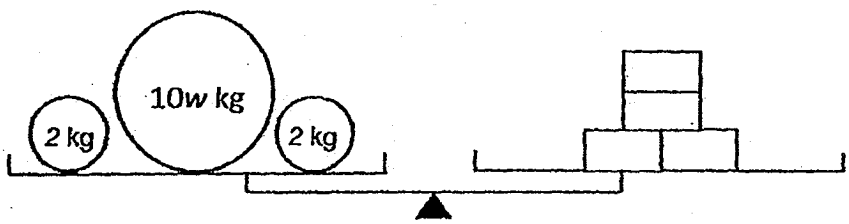
4. A group of pupils and teachers went on a learning journey to Botanic Gardens. For every 13 pupils, there were 2 teachers. There were 55 more pupils than teacher How many teachers were there?

Ans: _____ teachers



/ 4

5. In the figure below, 3 wooden balls are balanced by 4 identical boxes. Find the mass of each box in terms of *w*.




Ans: _____ kg



/ 2

For questions **6** to **17**, 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 brackets [ ] at the end of each question or part-question. (45 marks)
All diagrams are not drawn to scale.

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6. A cup cost \$14.

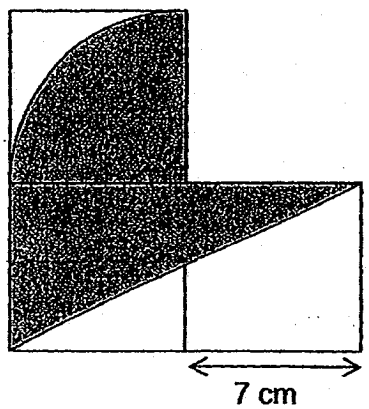
   5 such cups and 6 identical glasses cost \$43 more than 9 such glasses.

   How much did 9 such glasses cost?

Ans: _____ [3

7. The figure below is made up of 3 identical squares.

   Find the area of the shaded part of the figure. Take $\pi = 3.14$.




Ans: _____ [3]

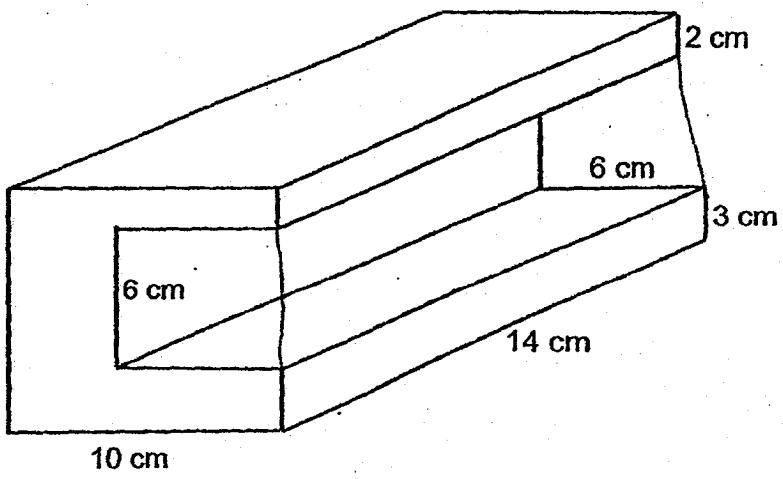


/ 6

8. John spent $\frac{1}{5}$ of his money on some muffins and $\frac{3}{8}$ of the remaining money on some cupcakes. Finally, he was left with $15. How much did he pay for the muffins

Ans:_____ [3]

9. Jason made a rectangular wooden block into the shape as shown below by removing a cuboid from the original block of wood. What is the volume of this solid?




Ans: _____ [4]



/ 7

10. The table below shows the number of bottles of folded hearts sold by three groups pupils. They sold a big bottle of folded hearts for $5 and a small bottle of folded hearts for $2.

| Group | Number of bottles of folded hearts sold | |
|---|---|---|
| | Small | Big |
| A | 14 | 9 |
| B | 7 | 7 |
| C | 5 | 15 |

(a) Find the total amount of money collected by group C.

(b) What was the average number of bottles of folded heart sold by the three group.

Ans: (a) _____ [ 2 ]

(b) _____ [ 2 ]



/ 4

11. Gina had some money. She spent $12 on 3 pens and 8 pencils. If she were to buy another pen, she would be short of $0.20. If she were to buy 1 more pencil, she would have $0.50 left. How much did each pen cost?

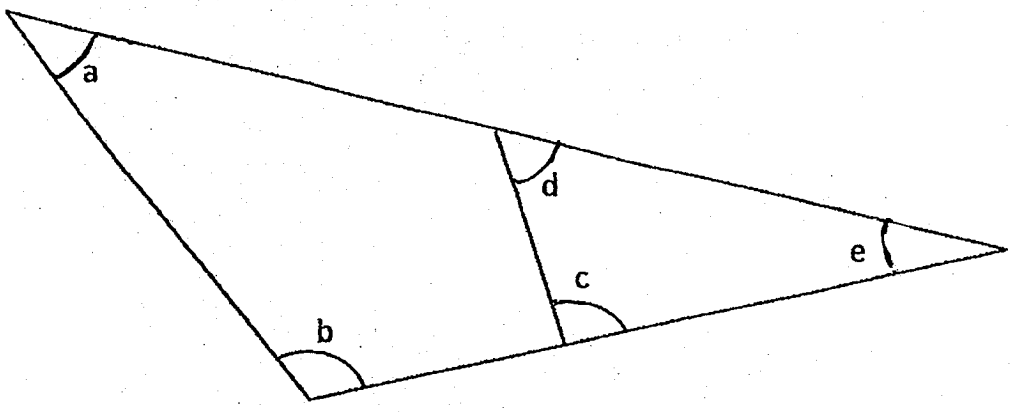
Ans:_____ [4



/ 4

12. In the figure below, $\angle a + \angle b + \angle c + \angle d = 290^{\circ}$.

What is the value of $\angle e$?




Ans: _____ [3]

/3

13. A van driver set off at 10 00 from City A towards City B, travelling at an average speed of 80 km/h.

A motorist set off from City A 2 hours later at an average speed of 120 km/h.

At what time did the motorist catch up with the van driver?

Express your answer using the 24-hour clock time.

Ans: _____ [3]



/3

14. David was paid $45 more than Jasmine for each day they worked.
David and Jasmine were paid $3555 altogether.
He worked 5 times as many days as Jasmine and was paid $2745 more than her.
How many days did David work?

Ans: _____ [4]



/4

15. Carol had 200 red and blue beads. 16% of them were blue.
She needed more blue beads. How many more blue beads must she buy to increas the percentage of the blue beads to 58%?

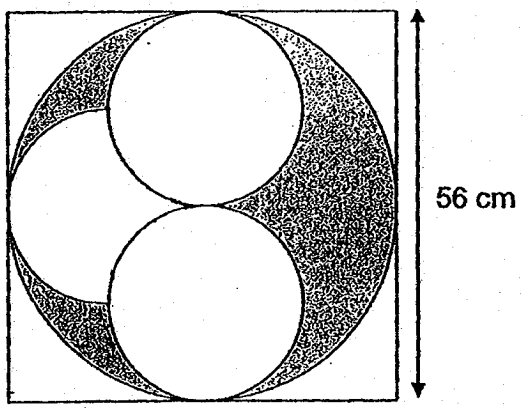
Ans: _____ [4]



/ 4

16. The figure below is made up of one square, one big circle and 3 identical smaller circles overlapping one another.

Find the area of the shaded part. Take $\pi = \frac{22}{7}$.




Ans: _____ [5]



/ 5

17. At a concert hall, the ratio of the number of females to the number of males was 5 : 6. The ratio of the number of girls to the number of women was 2 : 3. The ratio of the number of boys to the number of men was 3 : 4.

(a) What fraction of the people in the concert hall were children?

(b) If there were 66 more men than women, how many people attended the conce altogether?

Ans: (a) _____ [2

(b) _____ [3

/ 5

*Remember to check your work! Every mark counts.*
*~ End of Paper ~*

**SCHOOL : MAHA BODHI PRIMARY SCHOOL**

**LEVEL : PRIMARY 6**
**SUBJECT : MATH**
**TERM : 2018 SA1**

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## PAPER 1 BOOKLET A

| Q 1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 |
|---|---|---|---|---|---|---|---|---|---|
| 2 | 3 | 3 | 2 | 4 | 3 | 3 | 3 | 1 | 2 |

| Q 11 | Q12 | Q13 | Q14 | Q15 |
|---|---|---|---|---|
| 2 | 2 | 4 | 2 | 1 |

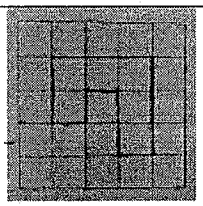
## PAPER 1 BOOKLET B

Q16) **8**

Q17) **1/16**

Q18) **3/250**

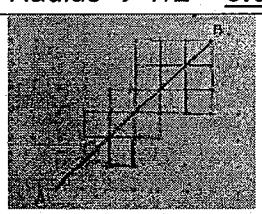
Q19)



Q20) **$2.80**

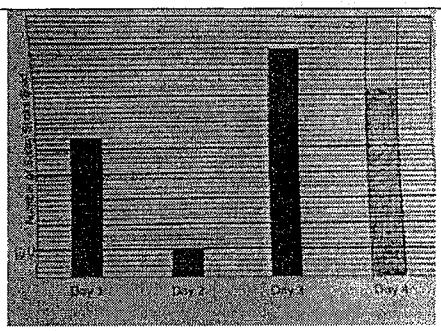
Q21) 22 – 5 – 10 = 7
Radius → 7/2 = **3.5**

Q22)



**Ans : 4 squares**

Q23)



Q24) $10b - $3b = $7b

$7b x 3 = **$21b**

Q25) 1/2 x 22/7 x 14 = 22

1/2 x 22/7 x 28 = 44

Perimeter —> 22 + 44 + 14 = **80**

Q26) 60% —> $126

1% —> $2.10

100% —> $2.10 x 100 = **$210**

Q27) D—> S x T

= 19 x 100 m

= 1900 m

Length of tunnel —> 1900 – 80 = **1820**

Q28)

| | | |
|---|---|---|
| 2M + 5P | | |

1M = 3P

2M = 6P

1//3 of money can buy 2M + 5P = 6P +5P = 11P

The rest of the money → 11P x 2 = 22P (**Ans : 22**)

Q29) **8 cubes**

Q30) 50 x 3 = 150

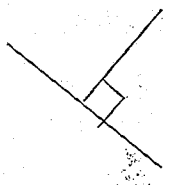
60 x 3 = 180

180 – 150 = 30

38 – 30 = **8**

**PAPER 2**

Q1)



Q2)

| | Raji. | : | Ali. | : | Total |
|---|---|---|---|---|---|
| Before → | 3 | : | 4 | : | 7 |
| | 6 | : | 8 | : | 14 |
| After → | 1 | : | 1 | : | 2 |
| | 7 | : | 7 | : | 14 |

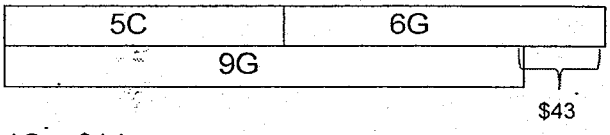
7 – 1 = 1
1u —> $52
14u —> $5 x 14 = **$728**

Q3) 180 – 38 = 142
142/2 = 71
71 - 60 = **11**

Q4) 13 – 2 = 11
55 ÷ 11 = 5
5 x 2 = **10**

Q5) 10w + 4 = 4 boxes
(10w + 4) / 4 = **10w / 4 +1**

Q6)




1C = $14
3G + $43 = 5C
1C = $14
5C = $14 x 5
= $70
3G + $43 = $70
3G = $70 - $43
= $27
1G = $27 ÷ 3 = $9
9G = $9 x 9 = **$81**

Q7) 1/2 x 7 x 14 = 49
1/4 x 3.14 x 7 x 7 = 38.465
Area of shaded part —> 49 $cm^2$ +38.465 $cm^2$ = **87.465 $cm^2$**

Q8) 1 - 1/5 = 4/5
4/5 x 3/8 = 3/10
1 - 1/5 - 3/10 = 5/10
5u —> 15
1u —> 15 ÷ 5 = 3
2u —> 3 x 2 = **6**

Q9) Vol. of empty space —> 6cm x 6 cm x 6 cm = 504 $cm^3$
Vol. of solid + Vol. of empty space —> 11 cm x 10 cm x 14 cm = 1540 $cm^3$
Vol. of solid —> (1540 - 505) $cm^3$ = **1036 $cm^3$**

Q10) a) 5 x $2 = $10
$5 x 15 = $75
$75 + $10 = **$85**

b) 14 + 9 + 7 + 7 + 5 + 15 = 57
57 x 3 = **19**

Q11) G = $?
$12 = 3P + 8 pencils
$? - $12 = 1P - $0.20
$? - $12 = 1pencil + $0.50
1 pencil + $0.50 = 1pen - $0.20
1 pencil - 1pen = - $0.20 - $0.50
= - $0.70
1 pen = 1pencil + $0.70
$12 = 3 pens + 8 pencils
= 3 pencils + $2.10 + 8 pencils
= 11 pencils + $2.10
11 pencils = $12 - $2.10
= $9.90
1 pencil = $9.90 ÷ 11
= $0.90
1 pen = $0.90 + $0.70
= **$1.60**

Q12) $(Aa + Ab + Ae) + (Ac + Ad + Ae) = 360^0$

$(Aa + Ab + Ac + Ad) + Ae + Ae = 360^0$

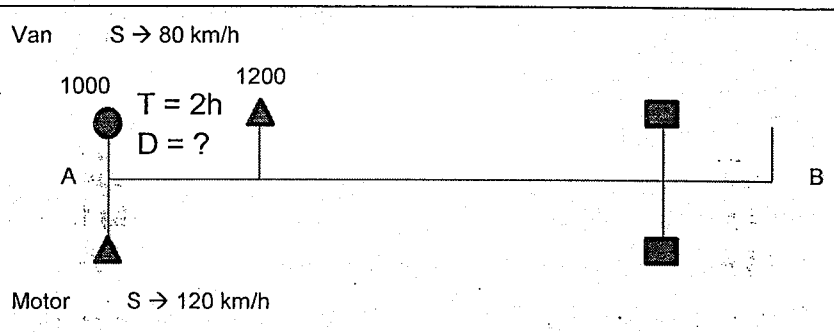
$290^0 + 2Ae = 360^0$

$2Ae = 360^0 - 290^0$

$= 70^0$

$Ae = 70^0 \div 2 = \underline{\mathbf{35^0}}$

Q13)



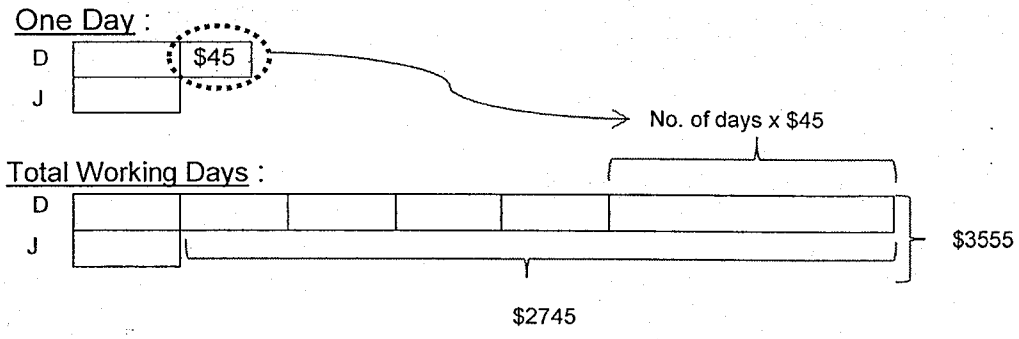

Difference in speed → 120 – 80 = 40

D → 80 x 2 = 160

160 ÷ 40 = 4

1200 after 4 h → **1600**

Q14)




2U → $3555 - $2745 = $810

1U → $810 ÷ 2 = $405

6U → $405 x 6 = $2430

Total Excess David earned → $3555 - $2430 = $1125

Number of days D worked → $1125 ÷ $45 = **25**

Q15) R : B : Total (200)
84% : 16% : 100%

100%. —> 200
1% —> 200 ÷ 100 = 2
B —> 2 x 16 = 32
R —> 2 x 84 = 168
New percentage : 168 –> (100% - 58%) = 42%
1% —> 168 ÷ 42 = 4
58% —> 4 x 58 = 232
232 - 32 = **200**

Q16) Diameter of small circle —> 56 ÷ 2 = 28

Area of a square —> 1/2 x 28 x 28 = 392

Area of a circle—> 22/7 x 28/2 x 28/2 = 22/7 x 14 x 14 = 616

Area of 4 semi-circle —> 616 - 392 = 224

Unshaded figure —> 616 x 2 + 392 = 1624

Big circle —> 22/7 x 56/2 x 56/2 = 2464

Shaded figure —> 2464 – 1624 = **840**

Q17) Boys : Men : Total
3 : 4 : 7
18 : 24 : 42

Female : Male : Total
5 : 6 : 11
35 : 42 : 77

Girls : Women : Total
2 : 3 : 5
14 : 21 : 35

18 + 14 = 32

a) **32/77**

b) 24 – 21 = 3

3 units —> 66

1 unit—> 66 ÷ 3 = 22

77 units —> 77 x 22 = **1694**