SA1


## PRIMARY 6 MID-YEAR EXAMINATION 2017

Name:

Class:

Parent's Signature: _____

# MATHEMATICS

## PAPER 1

## (BOOKLET A)

20

**INSTRUCTIONS TO CANDIDATE**

1. Write your name, class and register no.
2. Do not turn over this page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Show your working clearly as marks are awarded for correct working.
6. You are NOT allowed to use a calculator.

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 on the Optical Answer Sheet.

(20 marks)

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Q1. Round 83 729 to the nearest thousand.

(1) 80 000
(2) 83 000
(3) 84 000
(4) 90 000

Q2. Express $2\frac{5}{125}$ as a decimal.

(1) 2.004
(2) 2.040
(3) 2.400
(4) 24.000

Q3. Which of the following is the same as 10 km 36 m?

(1) 1 036 m
(2) 1 360 m
(3) 10 036 m
(4) 10 360 m

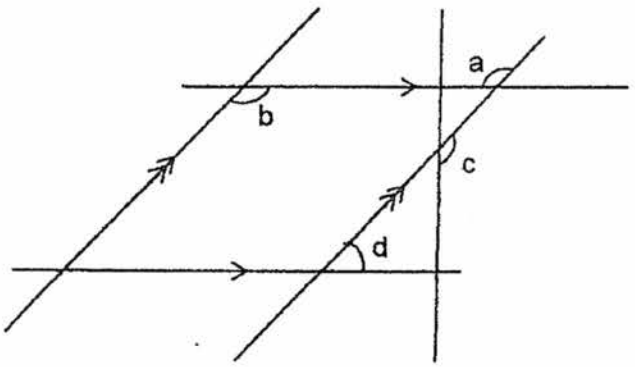
Q4. After spending 30% of his savings on a computer, Lionel still has $2 100 left. How much did the computer cost?

(1) $630
(2) $900
(3) $1 470
(4) $3 000

Q5. 300 people attended a concert. 60 were children. There was an equal number of men and women. What percentage of the people at the concert were men?

(1) 20%
(2) 40%
(3) 50%
(4) 80%

Q6. Which two angles add up to 180°?

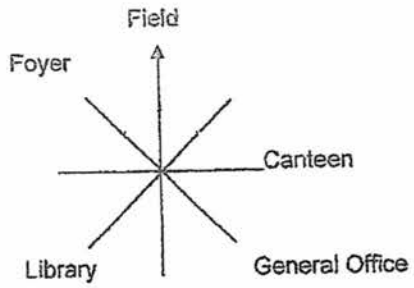



(1) ∠a + ∠b
(2) ∠a + ∠d
(3) ∠b + ∠c
(4) ∠c + ∠d

Q7. What is the quotient when 93 is divided by 4?

(1) 1
(2) 23
(3) 93
(4) 4

Q8. Sulin was facing the field at first. She then turned 90° clockwise and made another 135° turn anti-clockwise. Where will she be facing now?




(1) Foyer
(2) Library
(3) Canteen
(4) General Office

Q9. C L A S S C L A S S C L A S S ... ...

What will be the 209th letter in the pattern above?

(1) A
(2) C
(3) L
(4) S

Q10. Ahmad spent $\frac{1}{2}$ of his monthly allowance. He donated $\frac{3}{5}$ of the remainder to a charity and saved the rest. Find the ratio of the amount saved to the amount spent.

(1) 5 : 2
(2) 2 : 5
(3) 3 : 10
(4) 5 : 10

Q11. Mr Lim bought 2 black markers and 8 red pens for $15. A black marker cost $1.50 more than a red pen. What was the cost of each red pen?

(1) $1.20
(2) $1.50
(3) $2.70
(4) $4.00

Q12. The average mass of Ali and Benny is 45 kg. Ali weighs 10 kg heavier than Benny. Find Benny's mass.

(1) 35 kg
(2) 40 kg
(3) 55 kg
(4) 80 kg

Q13. $\frac{1}{3}$ of a class of pupils are girls. $\frac{1}{6}$ of the boys wear spectacles. There are 4 boys who wear spectacles. How many pupils are there in the class?

(1) 12
(2) 24
(3) 36
(4) 72

Q14. How many fourths are there in $12\frac{3}{4}$?

(1) 16
(2) 32
(3) 45
(4) 51

Q15. Andy, Bala and Charlie shared $840. Andy received 10% more than Bala while Charlie received 30% less than Bala. How much did Bala receive?

(1) $210

(2) $252

(3) $300

(4) $336

- END OF BOOKLET A -

TAO NAN SCHOOL 道南学校

SINCERITY & PERSEVERANCE

## PRIMARY 6 MID-YEAR EXAMINATION 2017

Name:

Class:

Parent's Signature: _____

# MATHEMATICS

## PAPER 1

(BOOKLET B)

20

**INSTRUCTIONS TO CANDIDATE**

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3. Follow all instructions carefully.
4. Answer all questions.
5. Show your working clearly as marks are awarded for correct working.
6. You are NOT allowed to use a calculator.

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)

---

Q16. Find the value of 196 ÷ 25. Give your answer as a fraction in the simplest form.

Ans: _____

---

Q17. Find the value of $\frac{4}{5} \times (48 - 30 \times \frac{3}{5}) \div 2$.

Ans: _____

---

Q18. What is the missing number in the box?

Apples : Oranges

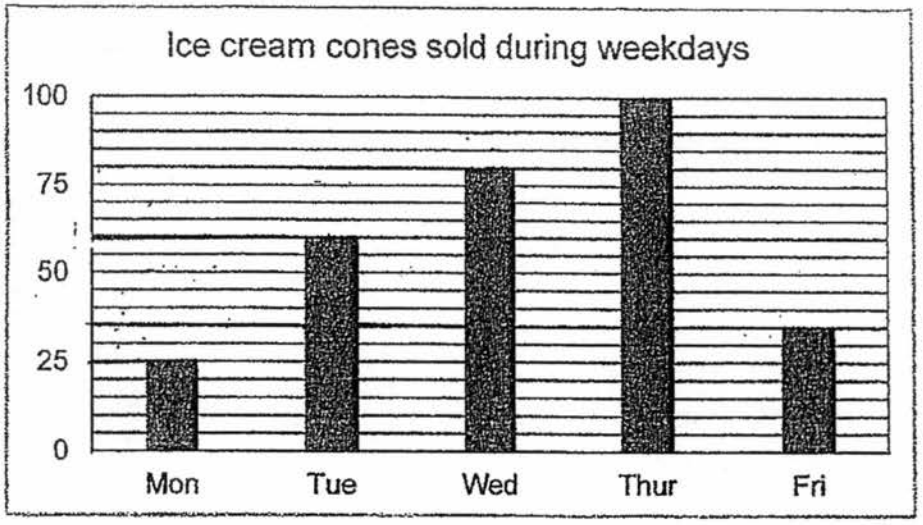
9 : 15

24 : ?

Ans: _____

---

Q19. The graph shows the number of ice cream cones sold during the weekdays. Find the percentage of ice cream cones sold on Monday and Friday.




Ans: _____ %

---

Q20. The average mass of a pile of 12 books is 700 g. One book of mass 1300 g and another book of mass 1100 g were removed from the pile. What is the average mass of the remaining 10 books?

Ans: _____ g

---

Q21. The table below shows the mark ranges of P6 pupils for Mathematics.

| Mathematics | 100 to 91 | 90 to 85 | 84 to 75 | 74 to 65 | 64 to 50 |
|---|---|---|---|---|---|
| Number of Pupils | 29 | 153 | 86 | 74 | 31 |

How many pupils scored at least 75 marks?

Ans: _____

---

Q22. Find the value of 57.25 x 8.

Ans: _____

---

Q23. For a learning journey, 332 pupils and 18 teachers travelled to the Science Centre on buses. Each bus had a seating capacity of 40. What is the minimum number of buses required for the learning journey?

_____

---

Q24. For every 7 books that Lydia reads, she gets 3 stickers. How many stickers will she get if she reads 56 books?

Ans: _____

---

Q25. Kumar is $k$ years old. His sister is 3 years younger than him. What will their total age be in 5 years' time in terms of $k$?

Ans: _____ years old

---

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)

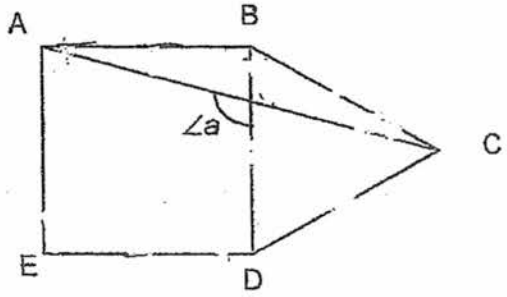
---

Q26. The volume of a cube is 27 cm³. Find the total surface area of the cube.

Ans: _____ cm²

---

Q27. Given ABDE is a square, AC is a straight line and BCD is an equilateral triangle. Find $\angle a$.




Ans: _____ °

---

Q28. The bicycle rental rate at 'Rent & Cycle' is as shown below.

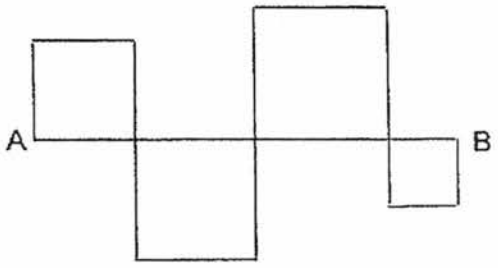
| | |
|---|---|
| First hour | $8 |
| Every 1 hour or part thereof | $7 |

Xiaoming rented a bicycle from 10.30 a.m. to 2.15 p.m. How much did he have to pay in total?

Ans: $ _____

---

Q29. A wire of 100 cm is bent to form four squares as shown below. Find the length of AB.




Ans: _____ cm

---

Q30. Siti receives $5 while Aishah receives $5.40 for their daily pocket money. They both spent $3 each day and saved the rest of the money. How many days would have passed when Aishah had saved $6 more than Siti?

Ans: _____

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- END OF BOOKLET B -

TAO NAN SCHOOL 道南学校

SINCERITY & PERSEVERANCE

# PRIMARY 6 MID-YEAR EXAMINATION 2017

Name: _____ (  Date: 12 May 2017

Class: Primary 6 (  )  Time: 10.00a.m. – 11.40a.m.

Parent's Signature: _____

# MATHEMATICS

## PAPER 2

/ 60

**INSTRUCTIONS TO CANDIDATE**

1. Write your name, class and register no.
2. Do not turn over this page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Show your working clearly as marks are awarded for correct working.
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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. At a sale, the price of a pair of shoes was $79 after a 20% discount. Find the price of the pair of shoes before the discount.

Ans: $ _____

---

2. Find the value of $\frac{48}{a} \times (9 - a)$ when $a = 3$.

Ans: _____

---

3. Alex had $5\frac{1}{4}\ell$ of water. He had $2\frac{3}{5}\ell$ of water left after watering 53 pots of plants. How much water did he use for each pot of plant?

Ans: _____ mℓ

---

4. There were 18 lines drawn at equal intervals from one end to the other end of a corridor. The distance between the first three lines was 120 cm. What was the distance between the 5th line and the last line?

Ans: _____ cm

---

5. Ahmad had 23 comic books more than Sam. When Sam gave Ahmad 8 comic books, Ahmad had 4 times as many comic books as Sam. How many comic books did Sam have at first?

Ans: _____

---

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. Bala is 11 years old. His father will be 3 times as old as him in 8 years' time. How old is Bala's father now?

Ans: _____ [3]

---

7. The number of \$10-notes Caili has is 40% of the number of \$2-notes that she has. There are $6n$ more \$2-notes than \$10-notes.
   (a) Express the number of \$10-notes in terms of $n$.
   (b) How much money does Caili have in \$10-notes when $n = 7$?

Ans: (a) _____ [1]

Ans: (b) _____ [2]

Use the information below to answer question 8.


| Ticket Pricing | | |
|---|---|---|
| VIP seats | : | S$190 |
| Premium seats | : | S$170 |
| Stall seats | : | S$140 |
| Circle seats | : | S$110 |
| Box seats | : | S$100 |

8. Jeff plans to take his 2 friends and 3 cousins to The Lion's Journey Musical. He has a budget of $950 to spend for the musical. He wants to buy the VIP seats for his friends. What is the best type of seats he can get for himself and his cousins with the remaining money?

Ans: _____ [3]

---

9. Peter went to watch a movie at 2.25 p.m. The duration of the movie was 2 h 23 min. After the movie, Peter walked and reached home at 5.33 p.m. How long did Peter take to reach home?

Ans: _____ [3]

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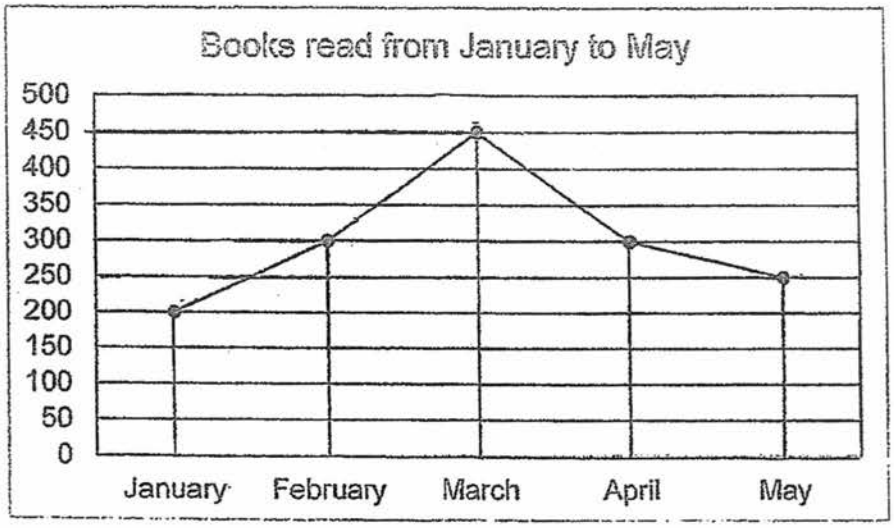
10. The line graph shows the number of story books read by pupils from January to May.




(a) What was the average number of books read in a month?
(b) Find the percentage decrease in the number of story books read from March to April.

Ans: (a) _____ [1]

Ans: (b) _____ [2]

11. There are some fiction books and 1350 non-fiction books in a library. After increasing the number of non-fiction books by 20%, the ratio of fiction to non-fiction books is 1 : 4. How many fiction books must be added so that there will be an equal number of fiction and non-fiction books?

Ans: _____ [4]

---

12. Mother bought a tin of milk powder. She used an equal amount of milk powder each day. At the end of the 15th day, $\frac{1}{4}$ of the tin was left. At the end of the 18th day, the amount of milk powder left was 120 g. Find the amount of milk powder in the tin at first.

Ans: _____ [4]

---

13. The average height of 5 pupils is 1.43 m. When Tina and Xiuli joined the group, the average height became 1.35 m. Tina is taller than Xiuli by 8 cm.
(a) Find the average height of Tina and Xiuli.
(b) Find Tina's height.

Ans: (a) _____ .[2]

Ans: (b) _____ .[2]

14. Amelia had some money. She spent 30% of it on books and $\frac{3}{7}$ of the remainder on clothes. After receiving $800 from her parents, she then had 40% more money than what she had at first. How much money did Amelia have at first?

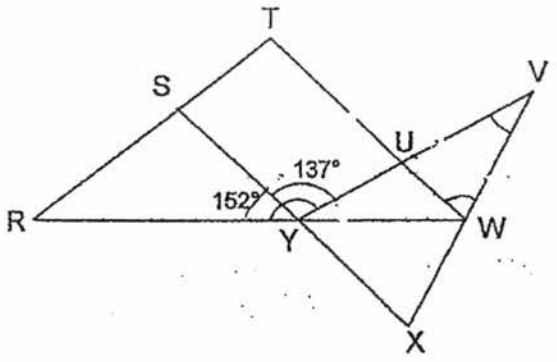
Ans: _____ [4]

15. At a construction site, concrete is made by mixing water, cement and sand in the ratio 1 : 2 : 3.
    (a) If 100 ℓ of water was used in the mixture, what is the volume of concrete made? Leave your answer in $cm^3$.
    (b) If all of the concrete is used to make a straight pavement of width 1 m and height 12 cm, how long would the pavement be?

Ans: a) _____ [2]

Ans: b) _____ [2]

16. In the diagram below, TUW // SYX and VY = VX.
∠SYW = 137° and ∠RYV = 152°.
(a) Find ∠UVW.
(b) Find ∠UWY.




Ans: (a) _____ [3]

Ans: (b) _____ [2]

17. In Company X, the ratio of the number of women to the number of men is 3 : 1. In Company Y, the ratio of the number of women to the number of men is 2 : 1. The number of workers in Company X is $\frac{2}{3}$ the number of workers in Company Y.

(a) Find the ratio of the number of men in Company X to the number of men in Company Y.

(b) When 40 women left Company X to join Company Y, the ratio of the number of women to the number of men in Company Y became 51 : 25. Find the number of women in Company Y now.

Ans: (a) _____ [2]

Ans: (b) _____ [3]

18. The diagram below shows 4 figures formed by shaded and unshaded squares.

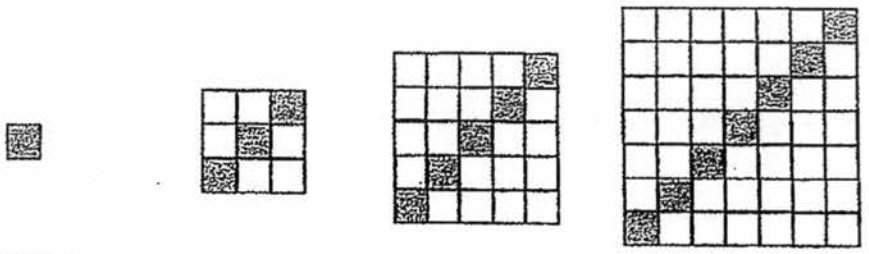


Figure 1 Figure 2 Figure 3 Figure 4

Complete the table.

| Figure | Unshaded Squares | Shaded Squares |
|---|---|---|
| 1 | 0 | 1 |
| 2 | 6 | 3 |
| 3 | 20 | 5 |
| 4 | 42 | 7 |
| 5 | 72 | (a) _____ [1] |
| 6 | (b) _____ [1] | 11 |

(a) Find the number of shaded squares in Fig. 5.
(b) Find the number of unshaded squares in Fig. 6.
(c) How many unshaded squares are there in Fig. 20?

Ans: (c) _____ [3]

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- END OF PAPER 2 -

EXAM PAPER 2017
LEVEL : PRIMARY 6
SCHOOL : TAO NAN PRIMARY SCHOOL
SUBJECT : MATHEMATICS (PAPER 1)
TERM : MID-YEAR

**PAPER 1**
**BOOKLET A**

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

**PAPER 1**
**BOOKLET B**

Q16.
$$25 \overline{)\,196} \quad 7$$
$$175$$
$$21$$

Ans : $7\frac{21}{25}$

Q17. $\frac{4}{5} \times (48 - 18) \div 2$
$= \frac{4}{5} \times 30 \div 2$
$= 24 \div 2$
$= 12$
Ans : 12

Q18. $9 : 15 = 3 : 5 = 24 : 40$
Ans : 40

Q19. $80 + 25 = 105$
$105 + 60 = 165$
$165 + 100 = 265$
$265 + 35 = 300$
$\frac{60}{300} \times 100\% = 20\%$
Ans: 20%

Q20. 700 X 12 = 8400
1300 + 1100 = 2400
8400 – 2400 = 6000
6000 ÷ 10 = 600

Ans : 600g

Q21. 153 + 29 = 182
182 + 86 = 268

Ans : 268

Q22. 57.25 X 8 = 458

Ans : 458

Q23. 332 + 18 = 350
350 ÷ 40 = 8.75 ≈ 9

Ans : 9 buses

Q24. 56 ÷ 7 = 8
8 X 3 = 24

Ans : 24 stickes

Q25. (K + 5) + (K – 3 + 5)
= (K + 5) + (K + 2)
= 2K + 7

Ans : (2K + 7) years old

Q26. 3 X 3 X 3 = 27
3 X 3 = 9
9 X 6 = 54

Ans : 54 $cm^2$

TAO NAN SA

Q27. $\angle DBC = 60^0$

$\angle BCA + \angle BAC = 180^0 - 90^0 - 60^0$

$= 30^0$

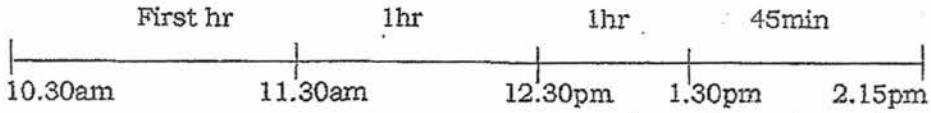
$\angle BCA = 30^0 \div 2^0 = 15^0$

$\angle BGC = 180^0 - 60^0 - 15^0 = 105^0$

$\angle BGC = \angle a$

Ans : $105^0$

Q28.




8 + 7 + 7 = 22

22 + 7 = 29

Ans : $29

Q29. 100 ÷ 2 = 50

50 ÷ 2 = 25

Ans : 25cm

Q30. $5.40 - $5 = $0.40

$6.00 ÷ $0.40 = 15

Ans : 15 days

END OF BOOKLET B

**PAPER 2**
**BOOKLET B**

Q1. $79 \div 80 \times 100 = 98.75$

Ans : \$98.75

Q2. $9 - 3 = 6$

$\frac{48}{3} \times \frac{6}{1} = \frac{96}{1}$

$= 96$

Ans : 96

Q3. $5\frac{1}{4}l = 5.25l$

$2\frac{3}{5}l = 2.60l$

$5.25l - 2.60l = 0.05l$

$0.05l = 50ml$

Ans : $50ml$

Q4. $3 - 1 = 2$

$120 \div 2 = 60$

$18 - 4 = 14$

$14 - 1 = 13$

$13 \times 60 = 780$

Ans : 780cm

Q5. $8 + 23 + 8 = 39$

$39 \div 3 = 13$

$13 + 8 = 21$

Ans ; 21 comic books

Q6. $11 \div 8 = 19$

$19 \times 3 = 57$

$57 - 8 = 49$

Ans : 49 years old

TAO NAN SA1

Q7. a) \$10 -- notes : \$2 – notes
4 : 10

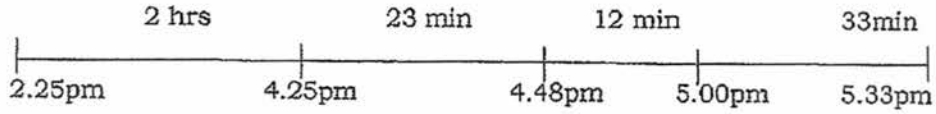
b) $10 - 4 = 6$
$6n \div 6 = 1n$
$1n \times 4 = 4n$
$n = 7$
$7 \times 4 = 28$
$28 \times 10 = 280$

Ans : a) $(4n)$
b) \$280

Q8. $190 \times 2 = 380$
$950 - 380 = 510$
$570 \div 4 = 142.25$

Ans : Stall seats

Q9.




12min + 33 min = 45min

Ans : 45 min

Q10. a) $200 + 300 + 450 + 300 \div 250 = 1500$
$1500 \div 5 = 300$
$450 - 300 = 150$

b) $\frac{100}{450} \times 100\% = 33\frac{1}{3}\%$

Ans : a) 300
b) $33\frac{1}{3}\%$

Q11. $1350 \div 100 \times 120 = 1620$
$1620 - 1350 = 270$
$1620 \div 4 = 405$
$1620 - 405 = 1215$

Ans : 1215 books

Q12. $1 - \frac{1}{4} = \frac{3}{4}$

$= \frac{45}{60}$

$\frac{45}{60} \div 15 = \frac{1}{20}$

$18 - 15 = 3$

$\frac{1}{20} \times 3 = \frac{3}{20}$

$\frac{1}{4} - \frac{3}{20} = \frac{2}{20}$

$= \frac{1}{10}$

$\frac{1}{10} \longrightarrow 120$

1 whole $\longrightarrow$ 120 X 10 = 1200

Ans : 1200g

Q13. a) 5 X 1.43 = 7.15

7 X 1.35 = 9.45

9.45 – 7.15 = 2.30

2.30 ÷ 2 = 1.15

b) 2.30 + 0.08 = 2.38

2.38 ÷ 2 = 1.19

Ans : a) 1.15m

b) 1.19m

Q14. 140 – 40 = 100

800 ÷ 100 = 80

80 X 10 = 800

Ans : $800

Q15. a) $100l = 100000cm^3$

$100000cm^3 \times (3 + 2 + 1) = 600000cm^3$

b) 100cm X 12 = 1200

600000 ÷ 1200 = 500

500cm = 5m

Ans : a) $600000cm^3$

b) 5m

TAO NGAH SAH

Q16. $\angle UYW = 180^0 - 152^0 = 28^0$

$\angle UWY = 180^0 - 137^0 = 43^0$

$\angle YUW = 180^0 - 28^0 - 43^0 = 109^0$

$\angle VUW = 180^0 - 109^0 = 71^0$

$\angle VUW = \angle VWU$

$\angle UVW = 180^0 - 71^0 - 71^0 = 38^0$

Ans : a) $38^0$

b) $43^0$

Q17. a)

| Company X | Company Y |
|---|---|
| women : men | women : men |
| 3 : 1 → 4u | 2 : 1 → 3u |
| | 4 : 2 → 6u |

$$\frac{\text{Number of workers in company X}}{\text{Number of workers in company Y}} = \frac{2}{3} = \frac{4}{6}$$

| Number of men in company X | : | Number of men in company Y |
|---|---|---|
| 1 | : | 2 |

b) Company Y

women : men

2 : 1

50 : 25

(40)

51 : 25

51u – 50u = 1u

1u = 40

Number of women on company Y now = 51u

= 51 X 40

= 2040

Ans: a) 1:2

b) 2040 women

Pg 7

Q18. a) $7 + 2 = 9$

b)

| Figure | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| Unshaded square | 0 | 6 | 20 | 42 | 72 | 110 |
| | | (+6) | (+14) | (+22) | (+30) | (+38) |

c) $7 + 2 = 9$
$10 \times 11 = 110$
$20 - 6 = 14$
$14 \times 2 = 28$
$28 + 11 = 39$
$39 + 38 = 1482$

Ans : a) 9
b) 110
c) 1482

END

Pg 8