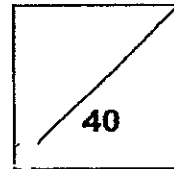**HENRY PARK PRIMARY SCHOOL**
2014 SEMESTRAL EXAMINATION 1
MATHEMATICS
PRIMARY 5

PAPER 1

Name: _____( )

Class: Primary 5 _____

40

30 Questions
40 Marks

Total Time for Booklet A and B: 50 min

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

READ AND FOLLOW INSTRUCTIONS CAREFULLY.

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 of the questions, four options are given. One of them is the correct answer.
Choose the correct answer (1, 2, 3 or 4). Shade the correct oval on the Optical Answer
Sheet provided.
(20 marks)

1. In 9 317 548, what does the digit 3 stand for?

    (1) 3000
    (2) 30 000
    (3) 300 000
    (4) 3 000 000   (   )

2. $887\ 305 = 800\ 000 + \boxed{} + 300 + 5$

    What is the missing number in the box above?

    (1) 87
    (2) 8700
    (3) 80 700
    (4) 87 000   (   )

3. Find the value of $45-(6+21)\div3\times2$.

    (1) 12
    (2) 27
    (3) 3
    (4) 40   (   )

4. Fitri made a bracelet using 8 blue beads and 14 yellow beads. What fraction of the beads on the bracelet were yellow?

(1) $\dfrac{4}{7}$

(2) $\dfrac{7}{4}$

(3) $\dfrac{4}{11}$

(4) $\dfrac{7}{11}$

(   )

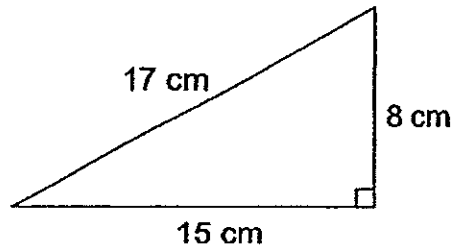5. Find the value of $1\dfrac{5}{12} + 1\dfrac{3}{4}$:

(1) $2\dfrac{1}{6}$

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

(3) $3\dfrac{1}{6}$

(4) $3\dfrac{1}{12}$

(   )

6. Find the area of triangle shown below.

(1)   40 cm^2

(2)   60 cm^2

(3)   68 cm^2

(4)   120 cm^2 (   )

7. There are 24 girls and 16 boys in a class. What is the ratio of the number of girls to the total number of pupils in the class?

(1)   3 : 2

(2)   3 : 5

(3)   5 : 3

(4)   2 : 5   (   )

8. Grace has 6 times as many stamps as Joyce and twice as many stamps as Ellen. What is the ratio of the number of stamps Joyce has to the total number of stamps the three girls have?

(1)   1 : 10

(2)   1 : 9

(3)   1 : 8

(4)   1 : 6   (   )

9. A fish tank has a capacity of 13 litres. It contains $8\dfrac{3}{4}$ litres of water. How much water is needed to fill the fish tank to the brim?
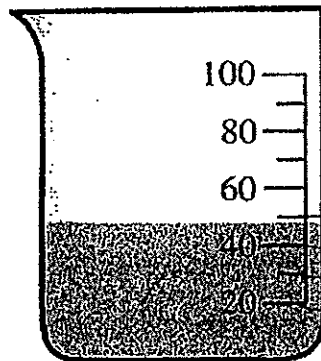
(1) $4\dfrac{1}{4}\;\ell$

(2) $4\dfrac{3}{4}\;\ell$

(3) $5\dfrac{1}{4}\;\ell$

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

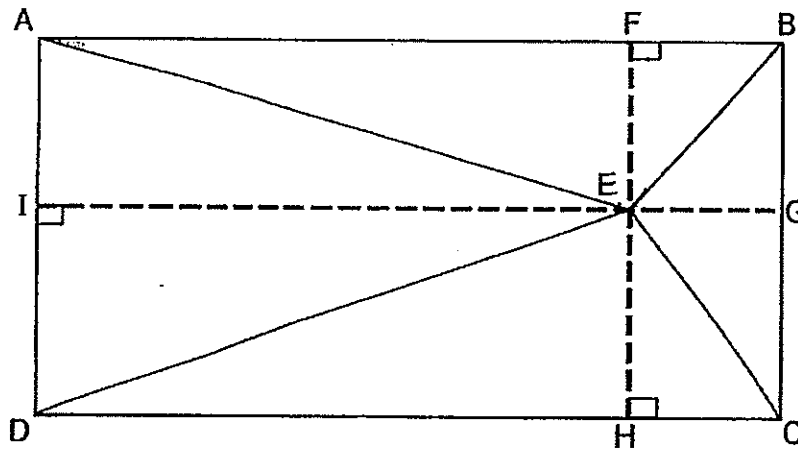10. What could be the volume of water in the beaker shown below?

(1)   44 ml
(2)   45 ml
(3)   48 ml
(4)   52 ml   ( )

11. ABCD is a rectangle. What is the height of triangle ABE, given that its base is AB?

   (1) BC
   (2) BG
   (3) EB
   (4) EG   (   )

12. The ratio of the length of a rectangle to its breadth is 7 : 3. The breadth of the rectangle is 12 cm. What is its length?

   (1) 28 cm
   (2) 40 cm
   (3) 36 cm
   (4) 84 cm   (   )

13. A machine can print 90 pages in 3 minutes. How many such pages can the machine print in 15 minutes?

    (1)   18
    (2)   270
    (3)   450
    (4)   1350   (   )

14. There are 20 swimmers in class 5E. $\frac{3}{5}$ of the swimmers are boys. How many girls are there in class 5E given that $\frac{1}{3}$ of the girls in class 5E are swimmers?

    (1)   8
    (2)   12
    (3)   24
    (4)   36   (   )

15. A rectangular tank 25 cm long, 10 cm wide and 42 cm high is half filled with water. What is the volume of the water in the tank?

    (1)   525 cm^3
    (2)   1050 cm^3
    (3)   5250 cm^3
    (4)   10 500 cm^3 (   )

NAME: _____

CLASS: P5_____

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 eight million, two hundred and forty thousand and sixty-seven in figures.

Ans: _____

17. Find the value of 24 × 12 000.

Ans: _____

18. Which one of the following numbers is exactly divisible by 20?
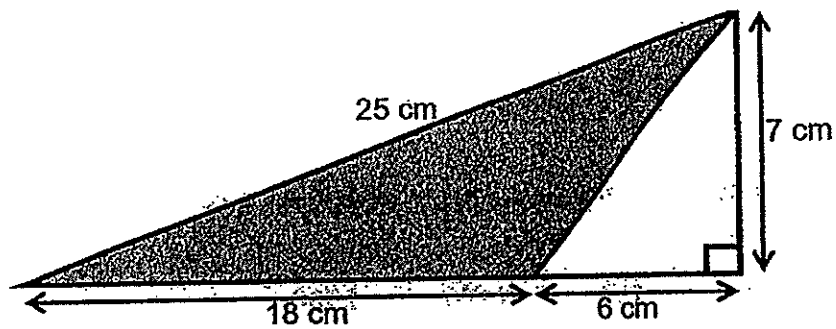
1090   1250   2170   2500

Ans: _____

19. Find the value of $\dfrac{5}{3} \times \dfrac{2}{15}$. Express your answer in its simplest form.

Ans: _____

20. Express 12 minutes as a fraction of 2 hours in its simplest form.

Ans: _____

21. Find the area of the shaded triangle in the figure below.

Ans: _____ cm²

22. 3 boys share some stamps in the ratio of 5 : 3 : 2. Given that the smallest share is 126, find the largest share.

Ans: _____

23. 18 : 39 = [   ] : 13

What is the missing number in the box?

Ans: _____

24. Find the capacity of a rectangular tank measuring 30 cm by 25 cm by 10 cm.

Ans: _____ cm³

25. 4 ℓ 75 mℓ = [   ] mℓ.

What is the missing number in the box?

Ans: _____

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. A number, multiplied by itself and then divided by 3, gives an answer of 27. Find the number.

Ans: _____

27. There are a total of 88 apples and oranges at a fruit stall. The ratio of apples to oranges is 4 : 7. How many more apples than oranges are there at the fruit stall?

Ans: _____

Page 10
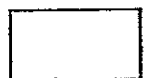
28. The length of a cube is 4 cm. What is the volume of 15 such cubes?

Ans: _____ cm^3

29. A group of pupils were at a school carnival. $\frac{3}{8}$ of them were boys. Given that 15 girls were at the carnival, how many boys were there at the school carnival?

Ans: _____

30. In the figure below, find the total area of the shaded region.
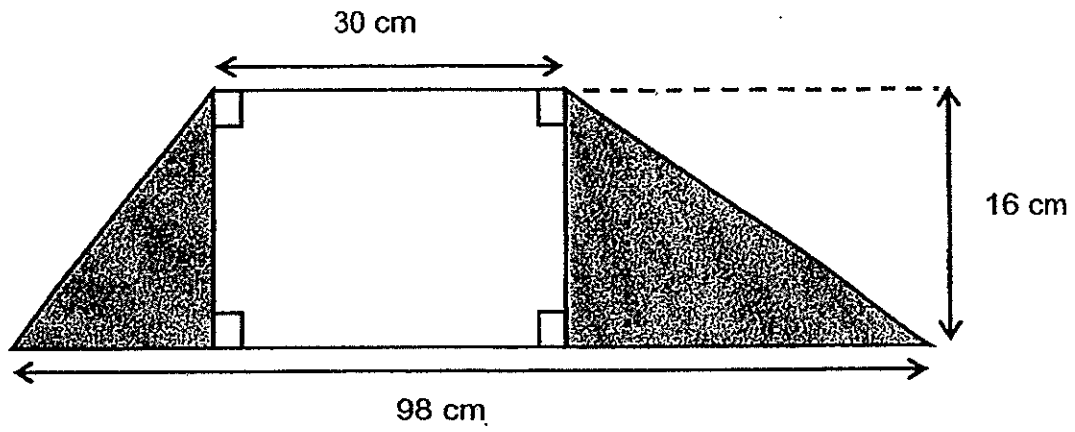
Ans: _____ cm²
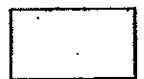
**HENRY PARK PRIMARY SCHOOL
2014 SEMESTRAL EXAMINATION 1
MATHEMATICS
PRIMARY 5**

PAPER 2

Name: _____ (   )

Class: Primary 5 _____

60
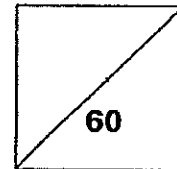
**18 Questions
60 Marks**

Total Time for Paper 2: 1 h 40 min

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

READ AND FOLLOW INSTRUCTIONS CAREFULLY.

YOU ARE ALLOWED TO USE A CALCULATOR.

3. Some 4-cm cubes are put into the box below. What is the maximum number of cubes that can be put into the box?

22 cm

Box

4 cm
4 cm
4 cm

10 cm

16 cm
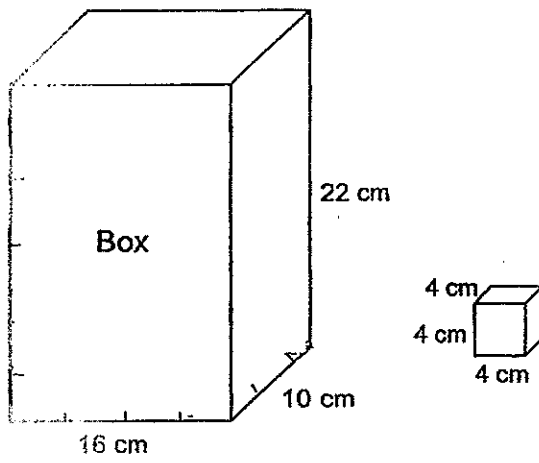
Ans: _____
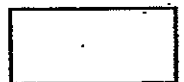
4. $\dfrac{5}{6}$ of Samantha's savings is the same as $\dfrac{2}{5}$ of John's savings.

What fraction of their total savings is John's savings?

Ans: _____

5. Jeremy is 40 kg. Kelvin is 24 kg heavier than Jeremy.
Larry is half as heavy as Kelvin.
What is the ratio of Larry's mass to Jeremy's mass?
(Give your answer in the simplest form)

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.   Mr and Mrs Quek bought an apartment for $443 000. They paid a down payment of $83 000 and paid the remaining amount in monthly instalments over a period of 30 years. How much was each monthly instalment?

Ans: _____[3]

7. A sum of $55 000 was given to a school to purchase laptops. A total of 36 laptops were purchased at $1288 each. What was the maximum number of additional laptops the school could purchase with the remaining amount of money?

Ans: _____[3]

8. Mrs Tan had a crate of fruits. $\frac{3}{5}$ of the fruits in the crate were apples. $\frac{1}{4}$ of the remainder fruits in the crate were oranges and the rest were pears. There were 54 more pears than oranges. What was the total number of fruits in the crate?

Ans: _____[4] .
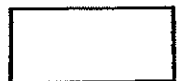
9. Andy had $60 more than Betty at first.

Andy spent $\frac{2}{5}$ of his money and Betty spent $\frac{1}{2}$ of her money at the bookshop.

After that, Andy had three times as much money as Betty.

How much money did Andy have at first?

Ans: _____[4]

10. The figure below is made up of a square ABEF and a rectangle BCDE.

The length of the square is $\frac{3}{4}$ the length of the rectangle.

Find the total area of the shaded regions.
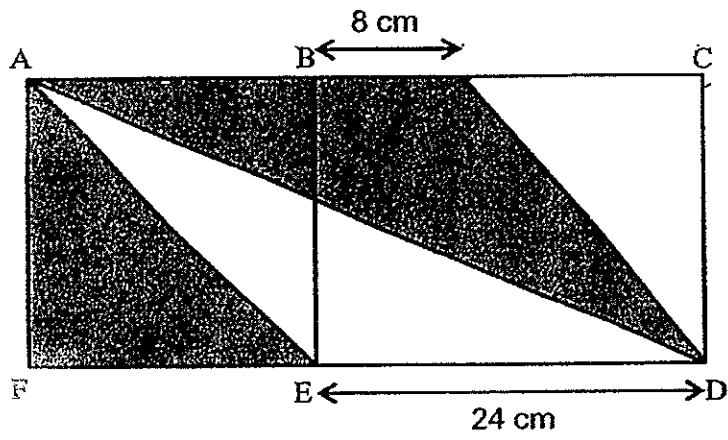
Ans: _____ [3]

11. Justin, Max and Emily shared a packet of sweets in the ratio 3 : 2 : 9.
Emily had 48 more sweets than Justin and Max.
How many sweets were there in the packet altogether?

Ans: _____ [3]

12. The figure below shows two rectangular tanks, Tank A and Tank B.

Tank A is $\frac{2}{3}$ filled with water while Tank B is fully filled with water.

How much more water is there in Tank A than Tank B?

18 m

6 m

7 m

Tank A

2 m

8 m

15 m
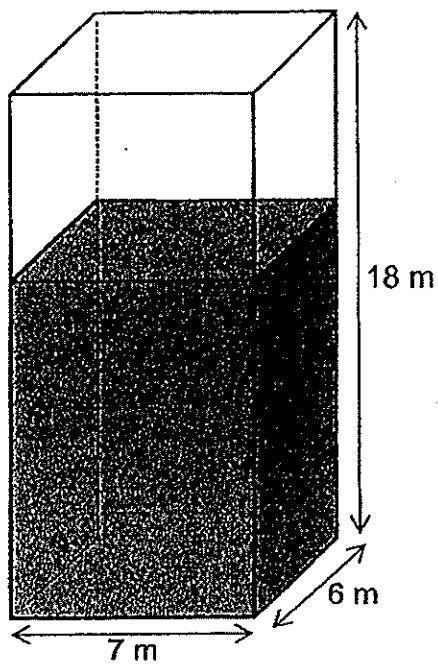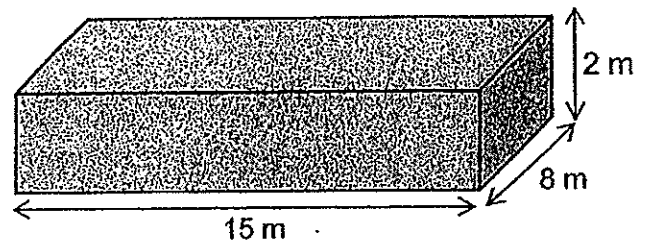
Tank B

Ans: _____[3]

13. The figure below shows the number of marbles Joseph bought from a shop each day. For each subsequent day, Joseph bought two more marbles than the previous day.

+2 +2

| Day 1 | Day 2 | Day 3 | Day 4 | ... |
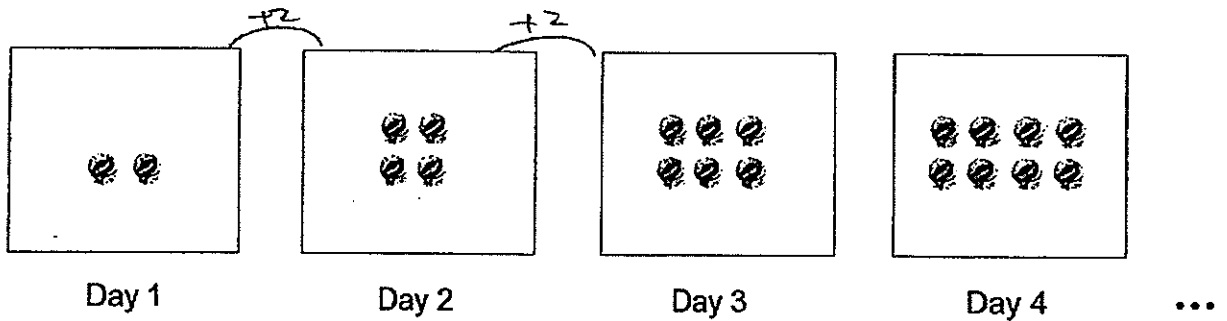
a) How many marbles will Joseph buy on Day 30?

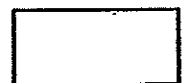b) At the end of Day 48, how many marbles would Joseph have bought in all?

Ans: (a) _____[1]

(b) _____[4]
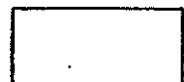
14. In a cinema, each row had the same number of seats. Jack sat on one of the seats in the cinema. There were 5 seats on his left and 14 seats on his right. There were 9 rows in front of him and 15 rows behind him. How many seats were there in the cinema altogether?
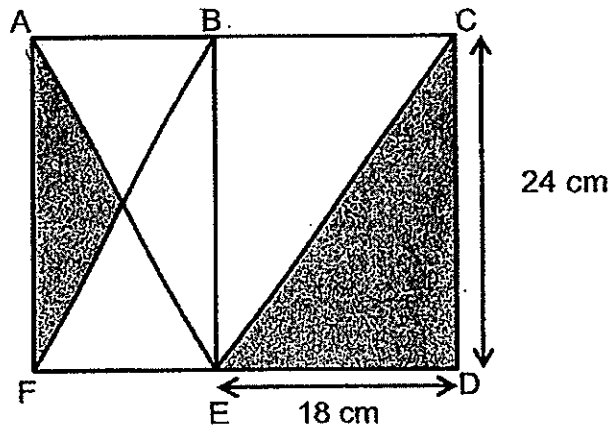
Ans: _____[4]

15. At a theme park, $\frac{2}{3}$ of the visitors were children and the rest were adults. $\frac{1}{4}$ of the adults were men and $\frac{3}{8}$ of the children were girls. Given that there were 320 more women than men, how many boys were there at the theme park?
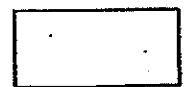
Ans: _____ [5]

16. In the figure below, rectangle ACDF is made up of two rectangles ABEF and BCDE. The area of the rectangle ACDF is 672 cm². Find the total area of the shaded regions.
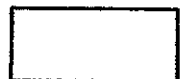

Ans: _____ [4]

17. Sharon and Alex had a number of erasers in the ratio of 3 : 1. Sharon and Roy had a number of erasers in the ratio of 4 : 5. Sharon, Alex and Roy had a total of 155 erasers altogether. How many more erasers did Roy have than Alex?
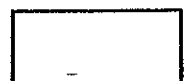
Ans: _____ [4]

18. A shopping mall awards its shoppers 50 points for every $30 spent at the mall. An additional bonus of 60 points is also awarded for every $120 spent. Mrs Chua spent $1410 at the mall. How many points would she earn?

Ans: _____[5]

-END OF PAPER-

Henry Park Primary School
2014 Semestral Examination 1
Mathematics
Primary 5

1) 3
2) 4
3) 2
4) 4
5) 3
6) 2
7) 2
8) 1
9) 1
10) 3
11) 2
12) 1
13) 3
14) 3
15) 3
16) 8 240 067
17) 288 000
18) 2500
19) 1/12
20) 1/10
21) 63 cm²
22) 315 stamps
23) 6
24) 7500 cm³
25) 4075
26) 27*3 = 81
    81 = <u>9</u> * <u>9</u>
    The number is 9.
27) 24 more oranges
28) 960 cm³
29) 9 boys
30) 98-30 = 68
    1/2*68*16 = 544 cm²

Paper 2
1) 3315+3369 = 6684
   6684+3315 = 9999
   Ans: 10 000

2) 2/3/7*7 = 17 litres

3) 22/4 = 5 R 2
   10/4 = 2 R 2
   16/4 = 4
   5*2*4 = 40 cubes

4) Since 5 units of Samantha is equal to 2 units of John, find the common multiple of 5 & 2, ie. 10

    So, Samantha —> 10/12
          John —> 10/25
    Hence, the answer is 25/37.

5) Kelvin —> 24 kg + 40 kg = 64 kg
    Larry —> 64/2 = 32 kg
    Therefore, 32 : 40 = 4 : 5

6) $443 000-$83 000 = $360 000
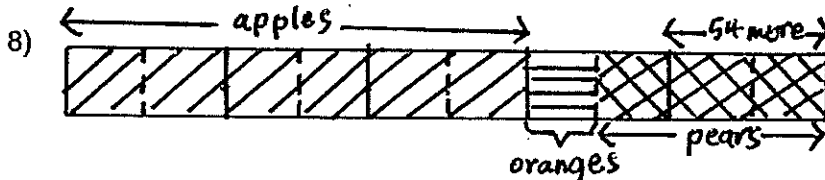 $360 000/(30*12) = $1000

7) $1288*36 = $46 368
    $55 000-$46 368 = $8632
    $8632/$1288 = 6 R 904
    The school could purchase 6 additional laptops.

8)

    2u —> 54
    10u —> 10/2*54 = 270 fruits in the crate.

9)   Before : After
    A   5 : 3
    B   2 : 1

    3 units —> $60
    5 units —> 5/3*60 = $100

10) Length of square = 3/4*24 = 18 cm
    Area of triangles = 1/2*18*18 + 1/2*26*18 = 396 cm²

11) 3units + 2units + 9units = 14units
    9units - 3units - 2units = 4units
    4 units —> 48
    14 units —> 14/4*48 = 168 sweets
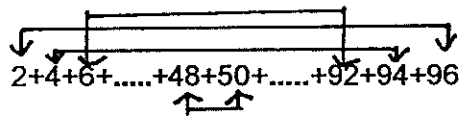
12) Volume of water in Tank A = 2/3*7*6*18 = 504 cubic m
    Volume of water in Tank B = 15*8*2 = 240 cubic m
    504-240 = 264 m³

13a) 30*2 = 60
b)   48*2 = 96

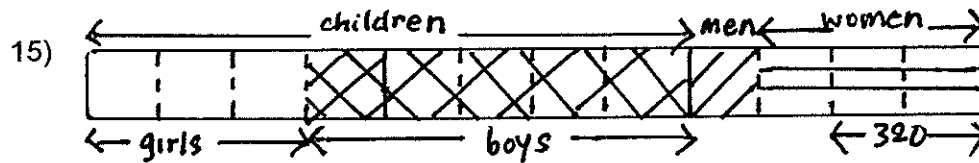2+4+6+.....+48+50+.....+92+94+96

24*98 = 2352

14) 5+14+1 = 20 (number of columns)
    9+15+1 = 25 (number of rows)
    20*25 = 500 seats

15)

children   men women
girls   boys   320

2 units --> 320
5 units --> 5/2*320 = 800 boys

16) 672 - 24*18 = 240 cm²
    240/24 = 10 cm (FE)
    1/2*24*5 = 60 cm²
    1/2*18*24 = 216 cm²
    60 + 216 = 276 cm²

17) 12units + 4units + 15units = 31units
    15units - 4units = 11units
    31units --> 155
    11units --> 11/31*155 = 55 more erasers

18) For every $120 spent,
    120/30*50 = 200 points
    200+60 = 260 points
    For $1410,
    1410/120 = 11 R 90
    90/30*50 = 150
    11*260 + 150 = 3010 points