

Name _____

24 August 2011

Class _____



CATHOLIC HIGH SCHOOL
PRIMARY SIX
PRELIMINARY EXAMINATION 2
PAPER 1
(BOOKLET A)

15 questions

20 marks

Total Time for Booklets A and B: 50 min

INSTRUCTIONS TO CANDIDATES

Do not open this booklet until you are told to do so.

Follow all instructions carefully.

Shade your answers in the Optical Answer Sheet (OAS) provided.

You are **not** allowed to use a calculator.

Answer all questions.

(Go to the next page)

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

1. The number of people who turned up at a carnival was 498 542. Express this number to the nearest thousand.

- (1) 490 000
 (2) 498 000
 (3) 499 000
 (4) 500 000

()

2. Which of the following is not a factor of 32?

- (1) 8
 (2) 2
 (3) 3
 (4) 4

()

3. Express 2 tens, 31 tenths and 4 thousandths as a decimal.

- (1) 2.314
 (2) 23.14
 (3) 23.014
 (4) 23.104

()

4. A machine can print 200 sheets of pictures in 5 minutes. How many sheets of pictures can it print in an hour?

- (1) 1000
 (2) 2400
 (3) 3000
 (4) 12000

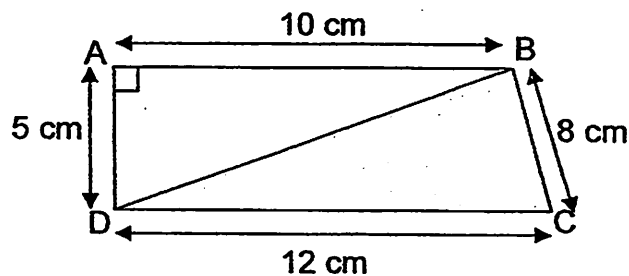
()

5. Janelle has as many red beads as green beads. She gave away $\frac{1}{7}$ of her red beads and $\frac{1}{7}$ of her green beads. What fraction of her beads had she left?

- (1) $\frac{2}{7}$
 (2) $\frac{3}{7}$
 (3) $\frac{5}{7}$
 (4) $\frac{6}{7}$

()

6. ABCD is a trapezium. Find the area of the shaded triangle BCD.



- (1) 25 cm^2
 (2) 30 cm^2
 (3) 40 cm^2
 (4) 48 cm^2

()

7. Jerry has $3q$ sweets. He gives 4 sweets to Sally and distributes the rest equally between his 2 brothers. How many sweets does each of his brothers get? Express your answer in terms of q .

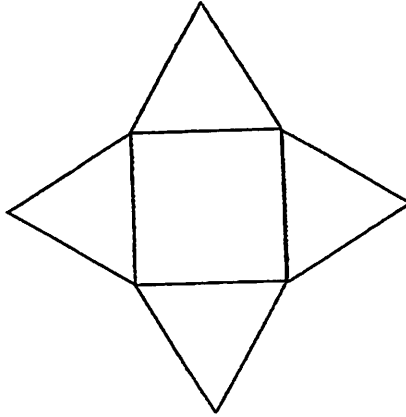
- (1) $\frac{3q - 4}{2}$
 (2) $3q - 2$
 (3) $\frac{3q - 4}{3}$
 (4) $3q - 12$

()

(Go to the next page)

(Go to the next page)

- (1) cone
- (2) prism
- (3) cuboid
- (4) pyramid



10. The net of a solid is shown below. Which solid shows the net shown below?

- (1) \$1
- (2) \$2.25
- (3) \$3
- (4) \$225

9. What is $\frac{4}{3}\%$ of \$300?

- (1) \$2.50
- (2) \$4.00
- (3) \$4.50
- (4) \$5.50

How much does it cost to deliver a parcel weighing 125g ?

First 50g	\$1.50
Every additional 20g or part thereof	\$1.00

8. The table below shows the charges for delivering a parcel.

Additional

11. Find the value of $40 \div 2 - (15 - 11) + 7$.

(1) 9

(2) 19

(3) 23

(4) 39

()

12. Karen and Betty each used some shapes to make a set of patterns. They make repeated patterns with the set of patterns created.

Karen    

Betty     

Which shape will first appear in the same position in both patterns?

(1) 

(2) 

(3) 

(4) 

()

13. Donna wants to cut out circular discs of radius 7 cm from a cardboard measuring 50 cm by 70 cm. What is the maximum number of circular discs that can be cut out from the cardboard?

(1) 15

(2) 17

(3) 70

(4) 71

()

(Go to the next page)

14. There were 10 more boys than girls at an outing. Each boy was given 3 sweets and each girl was given 4 sweets. A total of 156 sweets were given to the children. How many girls were there at the outing?

(1) 9

(2) 18

(3) 28

(4) 73

()

15. Mr Li was told to drive to a town to deliver a parcel from town X. He was given the following instructions:

Drive southeast from town X and then turn 90° anticlockwise and continue driving towards the destination.

Which town would Mr Li end up in?

Town A

Town B

Town X

Town C

Town D



(1) A

(2) B

(3) C

(4) D

()

Name: _____ ()

24 August 2011

Class: P 6 _____



CATHOLIC HIGH SCHOOL

PRIMARY SIX

PRELIMINARY EXAMINATION 2

MATHEMATICS

PAPER 1

(BOOKLET B)

15 questions

20 marks

Total Time for Booklets A and B: 50 min

Booklet A	
Booklet B	
Total	

INSTRUCTIONS TO CANDIDATES

Do not turn over this page until you are told to do so.

Follow all instructions carefully.

Answer all questions.

Show your working clearly as marks are awarded for correct working.

Write your answers in this booklet.

You are not allowed to use a calculator.

Questions 16 to 25 carry 1 mark each. Write your answers in the space provided. For questions which require units, give your answers in the units stated. (10 marks)

Do not write in this space

16. Write four hundred and five thousand and eight in figures.

Ans: _____

17. Form the greatest odd number using the digits 4, 8, 9, 1.

Ans: _____

18. Divide 0.2 by 4.

Ans: _____

(Go to the next page)

19. $24 : 16 = 27 : \boxed{?}$

Find the missing number in the box.

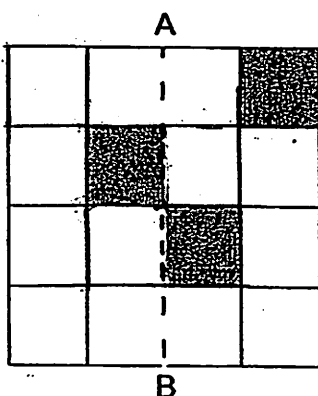
Ans: _____

Do not write
in this space

20. 28 cakes are to be shared equally by a group of children. Each child receives $\frac{2}{7}$ of a cake. How many children are there in the group?

Ans: _____

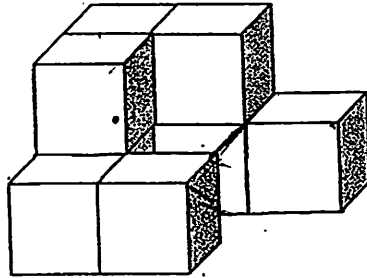
21. AB is the line of symmetry of the figure shown below. Shade 3 more squares to make the figure symmetrical.



(Go to the next page)

22. The figure below shows a solid made up of some identical unit cubes. How many unit cubes are needed to form the next bigger cube?

more

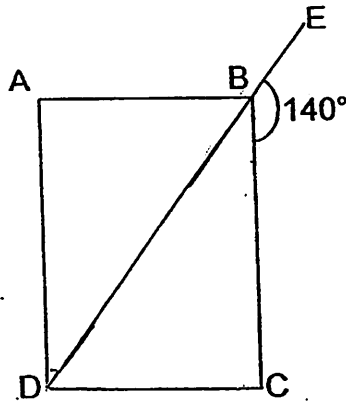


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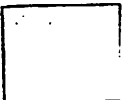
Ans: _____



23. ABCD is a rectangle. DBE is a straight line. Find $\angle CDB$.



Ans: _____



(Go to the next page)

24. A man parked his car in a shopping complex from 7.35 a.m. to 12 noon. How long did he park his car at the shopping complex? Express your answer in simplest form.

Do not write in this space.

Ans: _____ h

25. Joe and Ryan has an average of 19 cookies. Donald and Joe has an average of 26 cookies. Find the difference in the number of cookies between Donald and Ryan.

Ans: _____

Total marks for questions 16 to 25

(Go to the next page)

95

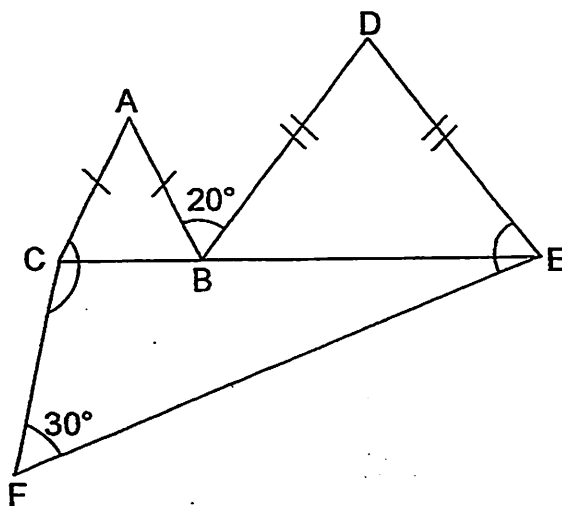
Questions 26 to 30 carry 2 marks each. Show your working clearly in the space below each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

Do not write in this space.

26. Express $2\frac{6}{7}$ as a decimal and correct the answer to 1 decimal place.

Ans: _____

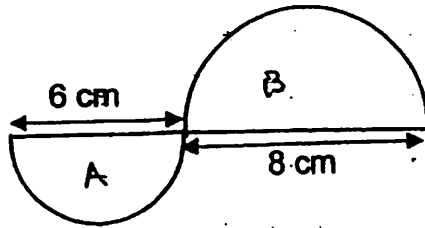
27. ABC, DEB and CEF are triangles. ABC and DEB are isosceles triangles and CE is a straight line. Find the sum of ACF and DEF.



Ans: _____°

(Go to the next page)

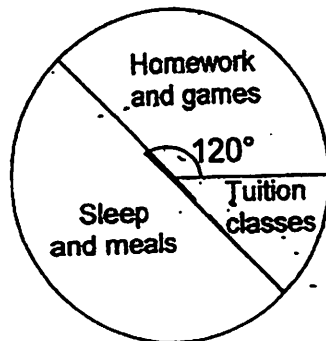
28. The figure is formed using 2 different semi-circles. Find the area of the figure. Leave your answer in terms of π .



Ans: _____ cm^2



29. The pie chart shows how Peter spends his time on a particular day. How much time is spent on tuition classes?

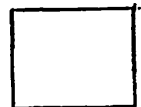
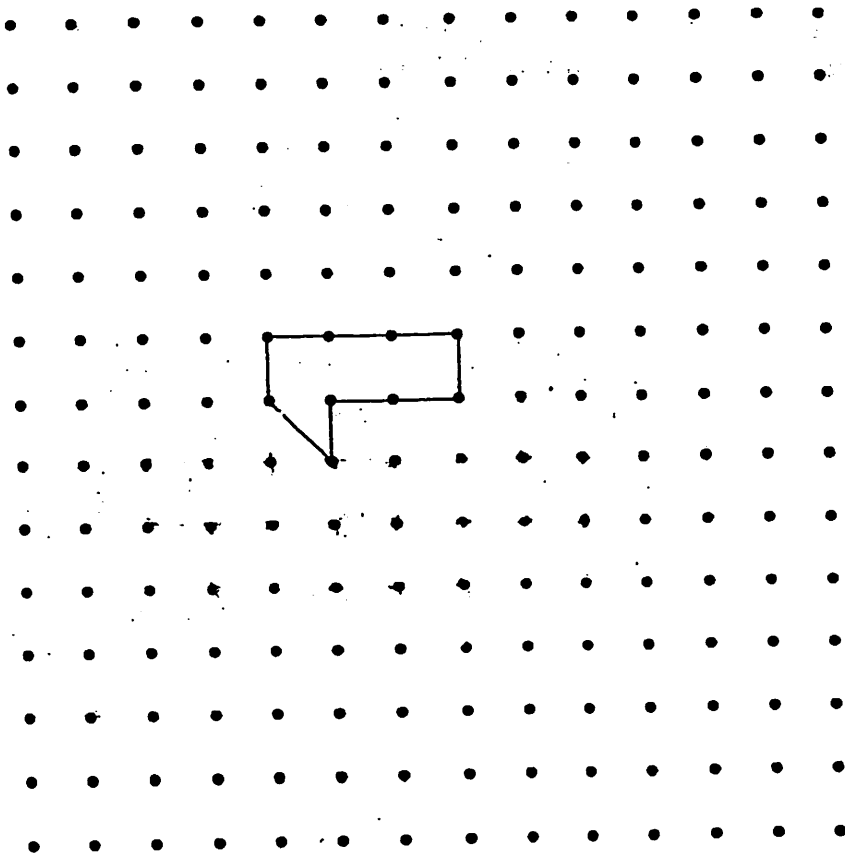


Ans: _____ h



30. Draw another 4 unit shapes in the space given below to show that the unit shape shown can tessellate.

Do not write in this space.



Total marks for questions 26 to 30



End of Paper 1

(Go to the next page)

Name : _____ () 24 August 2011

Class : P 6 _____



CATHOLIC HIGH SCHOOL

PRELIMINARY EXAMINATION 2

PRIMARY SIX

MATHEMATICS

PAPER 2

Paper 1 Booklet A	20
Paper 1 Booklet B	20
Paper 2	60
Total Marks	100

Total Time: 1 h 40 min

Parent's Signature: _____

INSTRUCTIONS TO CANDIDATES

Do not turn over this page until you are told to do so.

Follow all instructions carefully.

Answer all questions.

Show your working clearly as marks are awarded for correct working.

Write your answers in this booklet.

You are allowed to use a calculator.

Questions 1 to 5 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. All diagrams are not drawn to scale. (10 marks)

Do not write in this space

1. A bag is sold at \$120 after a discount of 20%. What is the original cost of the bag?

Ans: \$ _____

2. The ratio of the number of males to the number of females at a performance is 5 : 7. $\frac{1}{4}$ of the males and $\frac{3}{4}$ of the females are children. What is the ratio of the number of adults to children? Express your answer in simplest form.

Ans: _____

3. Owen has 20% more marbles than Danny. Danny has 40% less marbles than Connie. Owen has 21 marbles less than Connie. How many marbles does Danny have?

Ans: _____

(Go to the next page)

4. Judy is given some money to buy some files. If she buys 5 files, she will have \$4 left. If she buys 9 files, she will need another \$5. How much money does she have?

Do not write
in this space

Ans: \$ _____

5. The table below shows the number of books borrowed by pupils in the month of July.

Number of pupils	4	5	?	8	3	0
Number of books borrowed by each pupil	0	1	2	3	4	5

The total number of books borrowed by the pupils is 65. How many pupils borrowed 2 books?

Ans: _____

(Go to the next page)

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 the brackets [] at the end of each question or part-question. All diagrams are not drawn to scale. (50 marks)

Do not write
in this space

6. The ratio of the number of sweets Abigail has to the number of sweets Ben has is 4 : 5 at first. After Abigail bought another 16 sweets and Ben ate 2 sweets, Abigail has thrice as many sweets as Ben. How many sweets did Ben have in the end?

Ans: _____ [3]

7. Fred was given some pocket money. He spent $\frac{1}{3}$ of his money to buy games and saved $\frac{2}{3}$ of the remainder. He used the rest of the money on food. If he spent \$120 altogether, how much did he save?

Ans: _____ [3]

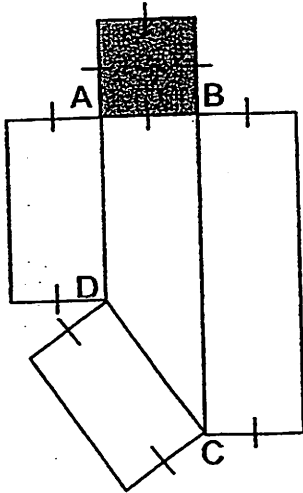
(Go to the next page)

8. Ken and Sam share some marbles. The ratio of the number of marbles Ken has to the number of marbles Sam has is $5 : 3$. If Ken's marbles increase by 15%, what percentage of Sam's marbles must be decreased so that the total number of marbles they have remained unchanged?

Do not write
in this space.

Ans: _____ [3]

9. Trapezium ABCD is formed using a square and three different rectangles. The total perimeter of the square and the rectangles is 120 cm. The perimeter of ABCD is 48 cm. Find the area of the square.

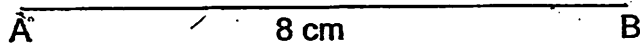


Ans: _____ [3]

(Go to the next page)

10. In the space below, draw a parallelogram ABCD in which $\angle ABC$ is 30° and AB is 8 cm and BC is 5 cm. The line AB has been drawn for you. Measure AC. Round off the answer to the nearest whole number.

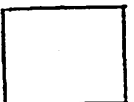
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in this space.



Ans: _____

[2]

[1]

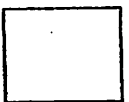


(Go to the next page)

11. At 9.30 a.m., a car left town X for town Y at a speed of 60 km/h for the whole journey. At 11 a.m., a lorry started from town Y and travelled towards town X. The speed of the lorry remained the same until it passed the car at 12.30 p.m. The lorry passed the car at midpoint between town X and town Y and decreased its speed by 20 km/h. It travelled at the new speed for the rest of the journey. What time did the lorry reach town X?

Do not write
in this space.

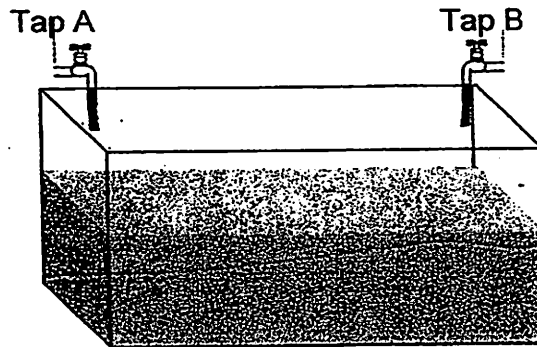
Ans: _____ [4]



(Go to the next page)

12. A tank contains 4 ℓ of water at first. Tap A is turned on and water from tap A flows into the container at the rate of 8 ℓ per minute. After 3 minutes, Tap B is turned on. Both taps are turned off together after another 5 minutes. If the total amount of water in the container is 77 ℓ after both taps are turned off, what is the rate of the water flowing from Tap B?

Do not write
in this space



Ans: _____ [4]



(Go to the next page)

13. The following figures are made up of sticks. Look at the figures below and answer the following questions.

Do not write in this space.

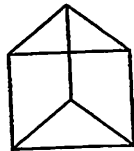


Figure 1

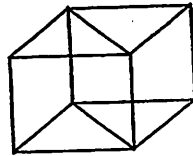


Figure 2

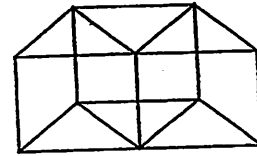


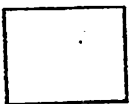
Figure 3

Figure number	Number of sticks	Number of rectangular faces
1	9	3
2	14	5
3	19	7
4		

[2]

- (a) Complete the table for figure 4.
 (b) Which figure is formed using 219 sticks?

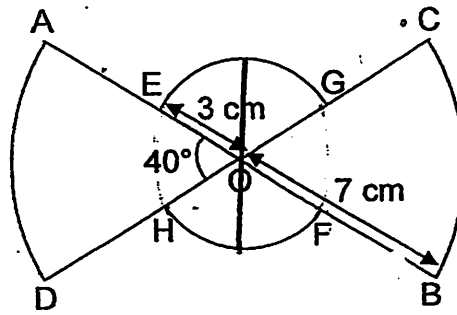
Ans:(b) _____ [2]



(Go to the next page)

14. AB and CD are diameters of a bigger circle. EF and GH are diameters of a smaller circle. O is the centre for both circles. Find the perimeter of the figure. Round off the answer to 1 decimal place. (Use calculator π)

Do not write in this space.



Ans: _____ [4]



15. Mrs Koh bought some pens, files and erasers. The ratio of the number of pens to the number of files to the number of erasers she bought was 1:2 :3. The cost of each pen and eraser is \$2.50 and \$0.50 respectively. If she spent \$60 on the pens and the erasers, how many files did she buy?

Do not write
in this space

Ans: _____ [4]

(Go to the next page)

16. Muthu, Ali and Bill shared a sum of money. 30% of Muthu's share was equal to 80% of Ali's share. Bill's share was 25% of Muthu's share. Ali had \$185 more than Bill.

a) Find the total sum of money.

b) If Muthu gave Bill 55% of his share, what percent of Bill's share was Ali's share? Round off your answer to 1 decimal place.

Do not write in this space

Ans:(a) _____ [3]

Ans:(b) _____ [2]

(Go to the next page)

17. Wendy has 80 more stamps than Mary but 50 more stamps than Jean. Wendy gives $\frac{1}{2}$ of her stamps to Mary. Then Mary gives $\frac{1}{5}$ of her stamps to Jean. If Jean has 62 more stamps than Wendy, how many stamps does Mary have in the end?

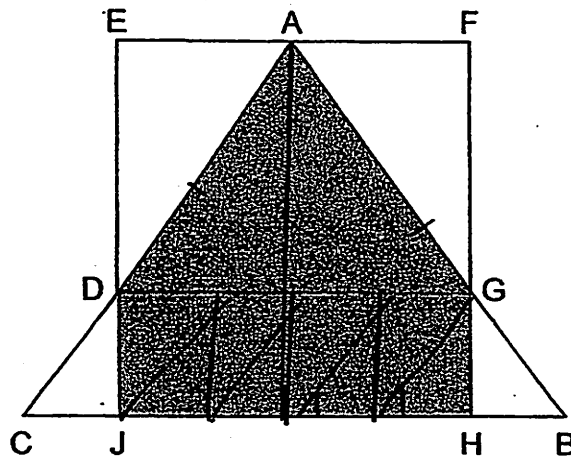
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Ans: _____ [5]



(Go to the next page)

18. AB is equal to AC . A is the mid-point of EF . CJ is $\frac{1}{4}$ of JH . $EFHJ$ is 200 cm^2 . If DJC is 18 cm^2 , find the shaded area $DAGHJ$.



Do not write in this space

Ans: _____ [5]



END OF PAPER.
PLEASE CHECK YOUR WORK CAREFULLY.

(Go to the next page)

ANSWER SHEET

EXAM PAPER 2011

SCHOOL : CATHOLIC HIGH
SUBJECT : PRIMARY 6 MATHEMATICS

TERM : PRELIMINARY

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

16)405008

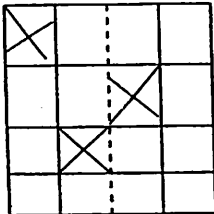
17)9841

18)0.05

19)18

20)98

21)



22)18

23)50°

24)45/12

25)14

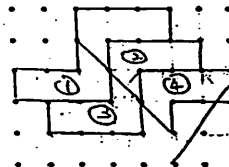
26)2.9

27)310°

28)12.5πcm²

29)4h

30)



Paper 2

1)80%-->\$120

$$100\% \rightarrow (120 \div 80) \times 100 = \$150$$

3)45

$$\begin{aligned} 5)(0 \times 4) + (5 \times 1) + (8 \times 3) + (3 \times 4) \\ + (0 \times 5) &= 41 \\ 65 - 41 &= 24 \\ 24 \div 2 &= 12 \end{aligned}$$

7)\$96

2)11:13

$$4)9 - 5 = 4$$

$$4 \text{ files} \rightarrow \$4 + \$5 = \$9$$

$$- 1 \text{ files} \rightarrow \$2.25$$

$$\text{Money} \rightarrow (5 \times \$2.25) + \$4 = \$15.25$$

$$6)15u - 4u = 11u$$

$$11u \rightarrow 16 + 6 = 22$$

$$1u \rightarrow 2$$

$$5u \rightarrow 10$$

$$10 - 2 = 8$$

$$8)15/100 \times 500 = 75$$

$$75/300 \times 100\% = 25\%$$

9) $120\text{cm} - 48\text{cm} = 72\text{cm}$
 $72\text{cm} - 48\text{cm} = 24\text{cm}$
 $24\text{cm} \div 8 = 3\text{cm}$
 $3\text{cm} \times 3\text{cm} = 9\text{cm}^2$

11) 3h after 9.30am \rightarrow 12.30pm
 $3\text{h} \times 60\text{km/h} = 180\text{km}$
 $\frac{1}{2}$ journey \rightarrow 180km
 $1\frac{1}{2}\text{h}$ after 11a.m \rightarrow 12.30pm
Lorry, $1\frac{1}{2}\text{h} \rightarrow 180\text{km}$
 $\frac{1}{2}\text{h} \rightarrow 60\text{km}$
 $1\text{h} \rightarrow 120\text{km}$

ave sp for lorry for first half \rightarrow 120km/h
new sp \rightarrow 120km/h - 20km/h = 100km/h
time to drive remaining to town X
 $\rightarrow 180/100 = 1\frac{4}{5}\text{h} \rightarrow 1\text{h}48\text{min}$
1h48min after 12.30p.m. \rightarrow 2.18p.m.

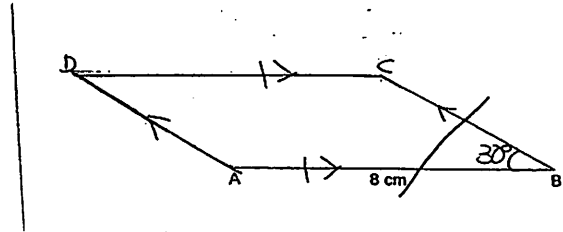
13) a) 24, 9
b) $219 - 24 = 195$
 $195 \div 5 = 39$
 $4 + 39 = 43$

15) $1 \times \$2.50 = \2.50
 $3 \times \$0.50 = \1.50
 $\$60 \div 4 = 15$
 $1u \rightarrow 15$
 $2u \rightarrow 30$

17) 128

18) $200\text{cm}^2 - (18\text{cm}^2 \times 8) = 56\text{cm}^2$
 $56\text{cm}^2 \div 4 = 14\text{cm}^2$
Area of shaded $\rightarrow (14\text{cm}^2 \times 2) + (18\text{cm}^2 \times 8)$
 $= (172\text{cm}^2)$

10) 4cm



12) $8L \times 3 = 24L$
 $8L \times 5 = 40L$
 $4L + 64L = 68L$
 $77L - 68L = 9L$
 $9L \div 5 = 1.8L/\text{min}$

14) Perimeter of A+B $\rightarrow \Pi \times 14\text{cm} = \frac{2}{9}$
 $= \frac{31}{9}\text{cm}\Pi$
Perimeter of C+D $\rightarrow \Pi \times 6\text{cm} \times \frac{7}{9}$
 $= \frac{42}{3}\Pi$
Perimeter $\rightarrow (\frac{31}{9}\Pi\text{cm} + \frac{42}{3}\Pi\text{cm}) + 4\text{cm} + 4\text{cm} + 4\text{cm} + 4\text{cm} \approx 40.4\text{cm}$

16) a) $15u - 10u = 5u$
 $5u \rightarrow \$185$
 $1u \rightarrow \$37$
 $10u + 40u + 15u = 65u$
 $65u \rightarrow \$2405$
b) $555/1184 \times 100\% \approx 46.9\%$

$\approx 114 =$
END