RED SWASTIKA SCHOOL

RED SWASTIKA SCHOOL

2014 CONTINUAL ASSESSMENT 1

MATHEMATICS
PAPER 1

Name : _____ ( )

Class : Primary 6 / _____

Date : 28 February 2014

BOOKLET A

15 Questions
20 Marks
Duration of Paper 1 (Booklets A & B): 50 minutes

Note:

1. Do not open this Booklet until you are told to do so.
2. Read carefully the instructions given at the beginning of each part of the Booklet.
3. Do not waste time. If a question is difficult for you, go on to the next one.
4. Check your answers thoroughly and make sure you attempt every question.
5. In this booklet, you should have the following:
   (a) Page 1 to Page 5
   (b) Questions 1 to 15
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 (1, 2, 3 or 4) on the Optical Answer Sheet. (20 marks)

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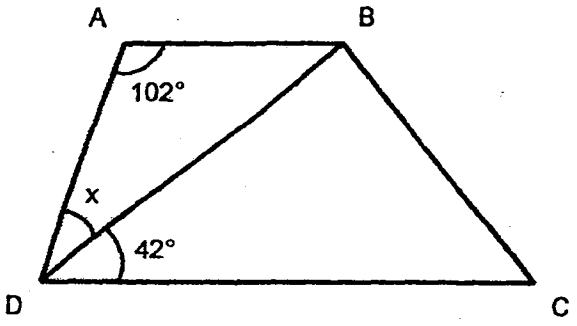
1 Simplify $10m + 15 - 7m + 3 + m$.

(1) $3m + 18$
(2) $4m - 12$
(3) $4m + 18$
(4) $17m + 18$

2 The sides of a triangle are in the ratio of 3 : 4 : 5. Express the shortest side of the triangle as a fraction of the perimeter of the triangle.

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

3 In the figure below, ABCD is a trapezium. Find $\angle x$.



(1) 18°
(2) 36°
(3) 42°
(4) 78°

4 Which of the following has the same value as $\frac{1}{32}$?

(1) $\frac{1}{8} \times 4$

(2) $\frac{3}{8} \div 4$

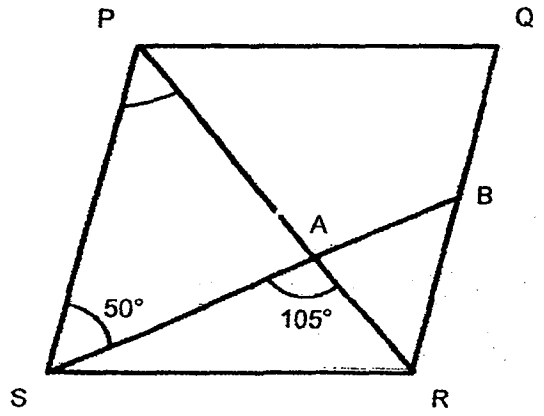
(3) $\frac{3}{8} \times 12$

(4) $\frac{3}{8} \div 12$

5 The ratio of the number of red ribbons to the number of blue ribbons is 5 : 6. The ratio of the number of blue ribbons to the number of yellow ribbons is 3 : 1. What is the ratio of the number of red ribbons to the number of yellow ribbons?

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

6 In the figure below, PQRS is a rhombus. PAR and SAB are straight lines. Find $\angle SPR$.



(1) 50°
(2) 55°
(3) 70°
(4) 75°

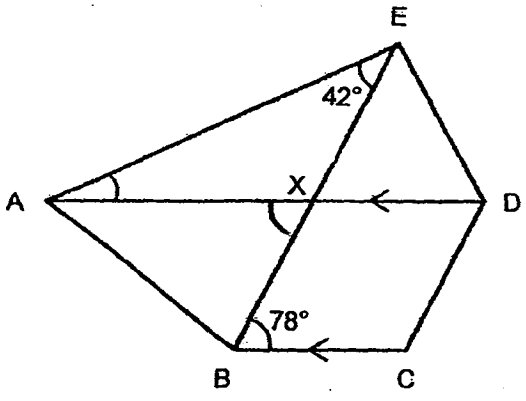
7 The ratio of the number of curry buns to the number of red bean buns in Box A is 3 : 7. There are 40 more red bean buns than curry buns. How many red bean buns are there in Box A?

(1) 10
(2) 30
(3) 40
(4) 70

8 $\frac{2}{5}$ of Andy's savings is equal to $\frac{1}{6}$ of Ben's savings. If Ben has \$14 more than Andy, how much savings does Andy have?

(1) \$10
(2) \$12
(3) \$24
(4) \$34

9 In the figure below, ABCD is a trapezium where AD is parallel to BC and EXB is a straight line. Find $\angle EAX$.



(1) 36°
(2) 39°
(3) 42°
(4) 78°

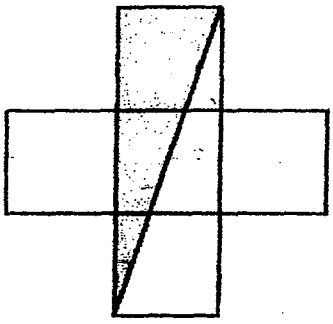
10 Mrs Lin bought some bottles of milk at \$3 per bottle. She gave the cashier \$$p$ and received \$2 in change. Find the number of bottles of milk Mrs Lin bought in terms of p.

(1) $\frac{p-2}{3}$
(2) $\frac{p+2}{3}$
(3) $3p+2$
(4) $2p-3$

11 Which of the following decimals is the largest?

(1) 7.35
(2) 7.530
(3) 7.503
(4) 7.305

12 The figure is made up of 5 identical squares. What fraction of the figure is shaded?

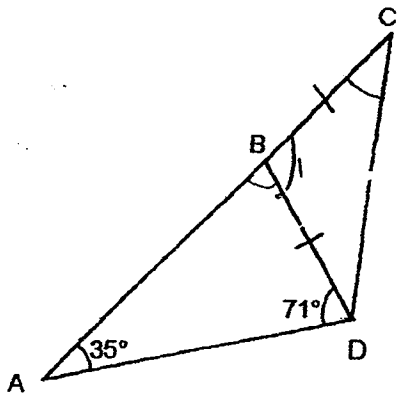


(1) $\frac{1}{3}$
(2) $\frac{2}{3}$
(3) $\frac{3}{10}$
(4) $\frac{7}{10}$

13 The ratio of the number of Sam's pencils to the number of Paul's pencils is 3 : 5 . After Sam gave Paul 66 pencils, the ratio became 1 : 3. Find the number of pencils Sam had at first.

(1) 66
(2) 132
(3) 198
(4) 330

14 In the figure below, BC = BD. Find $\angle BCD$.



(1) 35°
(2) 37°
(3) 60°
(4) 74°

15 The perimeter of a rectangle is $15y$ cm. If the length of the rectangle is 6 cm, find the breadth of the rectangle in terms of y.

(1) $(15y - 6)$ cm
(2) $(15y - 12)$ cm
(3) $\frac{(15y - 6)}{2}$ cm
(4) $\frac{(15y - 12)}{2}$ cm

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2014 CONTINUAL ASSESSMENT 1

MATHEMATICS
PAPER 1

Name : _____ ( )

Class : Primary 6 / _____

Date : 28 February 2014

BOOKLET B

15 Questions
20 Marks

In this booklet, you should have the following:
(a) Page 6 to Page 10
(b) Questions 16 to 30

MARKS

	OBTAINED	POSSIBLE
BOOKLET A		20
BOOKLET B		20
TOTAL		40

Parent's Signature : _____

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 Express $6\frac{3}{8}$ as a decimal.

Ans: _____

17 A rope which measures $\frac{2}{3}$ m long is cut into equal smaller pieces.

Each smaller piece of rope is $\frac{1}{6}$ m long. How many pieces are there?

Ans: _____

18 Find the sum of 12 tens, 12 ones and 12 thousandths.

Ans: _____

3

19 Benny had \$16p. His mother gave him \$4p. He bought a book for \$17. How much money had he left? Express your answer in terms of p.

Ans: \$ _____

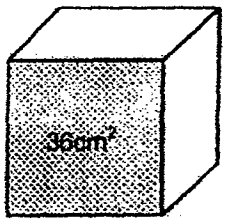
---

20 Express 0.8 as a percentage.

Ans: _____ %

---

21 The shaded face of the cube is 36 cm^2. What is the volume of the cube?



Ans: _____ cm^3

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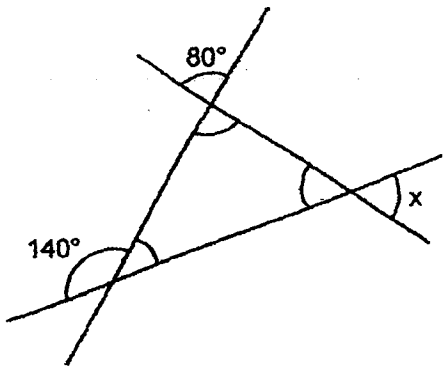
22 Find the value of $\frac{12b-12}{3b}$ *if* $b = 4$.

Ans: _____

4

23 The figure below is made up of 3 straight lines. Find $\angle x$.



Ans: _____ °

---

24 Raymond and Jaydon shared a box of crayons in the ratio 5 : 9. After Raymond lost 20 crayons, the ratio became 1 : 3. How many crayons did Jaydon get?

Ans: _____

---

25 The average height of a group of 5 girls was 156 cm. Jane joined the group and the new average height of the group became 158 cm. What was Jane's height?

Ans: _____ cm

3

Questions 26 to 30 carry 2 marks each. Show your workings 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 The table shows the number of nails used by a carpenter in a week.

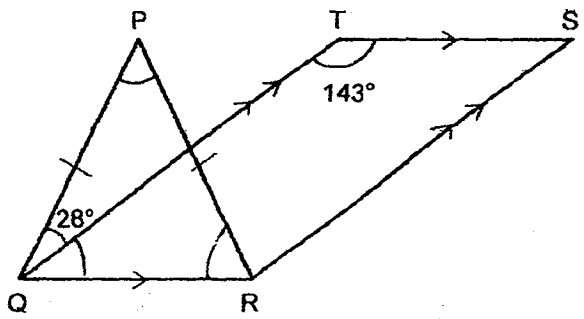
Day	Number of nails used
Monday to Friday	$3y$ per day
Saturday and Sunday	$(2y + 15)$ per day

What was the total number of nails used in the week? Express your answer in terms of y.

Ans: _____

---

27 In the figure below, PQR is an isosceles triangle and QRST is a parallelogram. Find $\angle QPR$.



Ans: _____ °

4

28 Simon spent $\frac{1}{3}$ of his salary on rent and gave $\frac{1}{4}$ of the remaining salary to his mother. He saved the rest of his salary. What fraction of his salary did he save? (Give your answer in its simplest form.)

Ans: _____

---

29 The number of fiction, non-fiction and comic books in the library are in the ratio of 15 : 5 : 8. If there are 300 fiction books, find the total number of non-fiction and comic books.

Ans: _____

---

30 The ratio of one side of an equilateral triangle to one side of a rhombus is 1 : 2. The sum of the perimeter of the triangle and rhombus is 77 cm. Find the perimeter of the rhombus.

Ans: _____ cm

END OF PAPER

6

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2014 CONTINUAL ASSESSMENT 1

MATHEMATICS
PAPER 2

Name : _____ ( )

Class : Primary 6 / _____

Date : 28 February 2014

18 Questions
60 Marks
Duration of Paper 2: 1 hour 40 minutes

Note:
1. Do not open this Booklet until you are told to do so.
2. Read carefully the instructions given at the beginning of each part of the Booklet.
3. Do not waste time. If a question is difficult for you, go on to the next one.
4. Check your answers thoroughly and make sure you attempt every question.
5. In this paper, you should have the following:
   (a) Page 1 to Page 12
   (b) Questions 1 to 18
6. You are allowed to use a calculator.

MARKS

	OBTAINED	POSSIBLE
PAPER 1		40
PAPER 2		60
TOTAL		100

Parent's Signature : _____

Questions 1 to 5 carry 2 marks each. Show your workings 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)

---

1 At a library, the ratio of the number of adults to the number of children is 4 : 5. The number of women is twice as many as men. What is the ratio of the number of women to the number of children?

Ans: _____

---

2 A washing machine and a dryer cost \$1 230 in total. $\frac{1}{3}$ of the cost of the washing machine is \$60 more than $\frac{1}{4}$ of the cost of the dryer. How much does the dryer cost?

Ans: \$ _____

---

3 20 years ago, John was $18k$ years old. How old was John $8k$ years ago? Express your answer in terms of k.

Ans: _____

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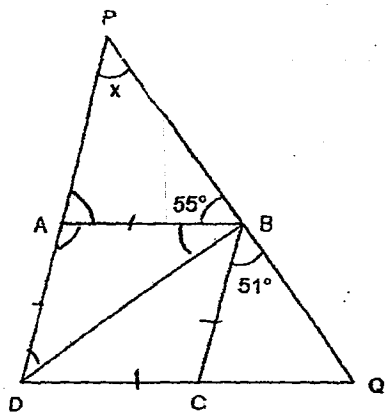
4 In the figure below, ABCD is a rhombus and PQD is a triangle. Given that $\angle PBA = 55°$ and $\angle QBC = 51°$, find $\angle x$.



Ans: _____ °

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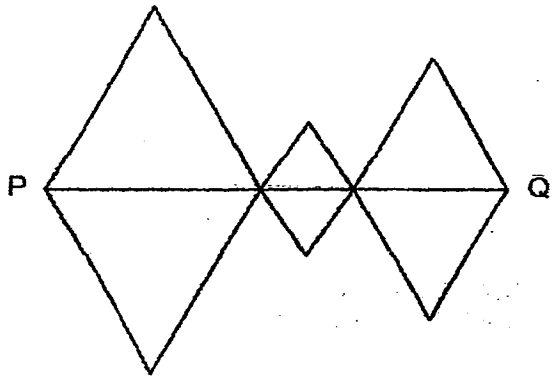
5 The figure is made up of 6 equilateral triangles. What is the length of PQ if the perimeter of the figure is 128 cm?



Ans: _____ cm

4

For Questions 6 to 18, show your workings clearly in the space below 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)

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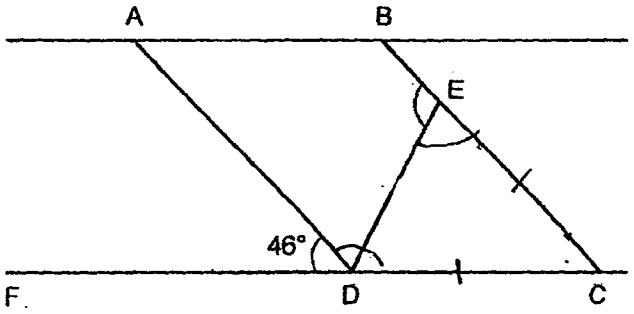
6 In the figure below, ABCD is a parallelogram. FC is a straight line, EC = DC and $\angle ADF = 46°$. Find $\angle BED$.



Ans: _____ [3]

---

7 253 digital cameras were sold on Day 1 of an IT show. $\frac{1}{5}$ of the remaining cameras were sold on Day 2 and the rest were sold on Day 3. The total number of cameras sold on the first two days was thrice the number of cameras sold on Day 3. Find the total number of cameras sold over the three days.

Ans: _____ [3]

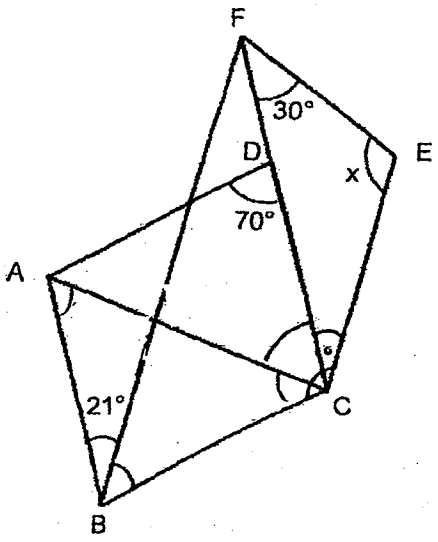
6

8 Yummy Tea is a mixture of tea leaves containing Leaves A, B and C. The ratio of the mass of Leaves A, B and C in Yummy Tea is 2 : 4 : 3 respectively. Each kind of tea leaves cost $9, $7 and $10 per kilogram respectively. How much does Mrs Raju have to pay if she bought 27 kg of Yummy Tea?

Ans: _____ [3]

---

9 In the figure below, ABCD is a rhombus and BCEF is a trapezium. FDC is a straight line. BF and CE are parallel lines. Find ∠x.



Ans: _____ [3]

6

10 In a class, $\frac{2}{5}$ of the pupils like Soccer. The rest of the pupils like Badminton and Basketball in the ratio 1 : 5. Given that 12 more pupils like Soccer than Badminton. How many pupils are there in the class?

Ans: _____ [3]

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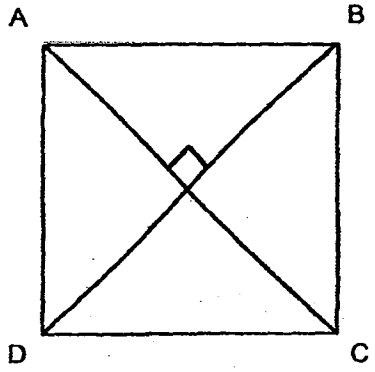
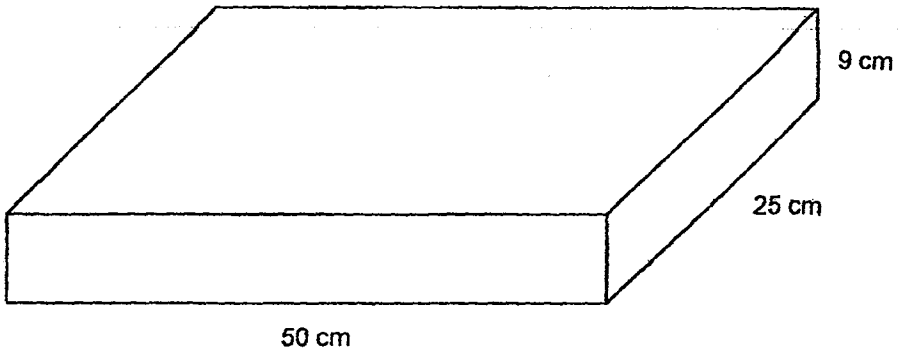
11 Line AC cuts Square ABCD into halves. AC = 14 cm, find the area of the Square ABCD.



Ans: _____ [3]

6

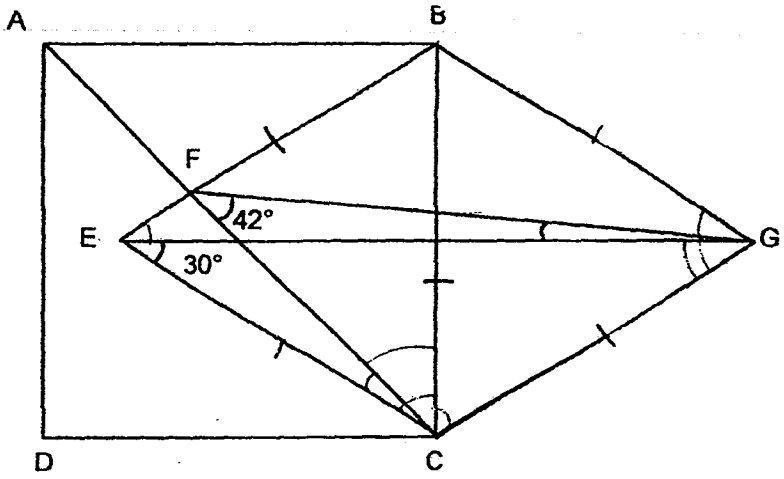
12 A carpenter has a rectangular block of wood measuring 50 cm by 25 cm by 9 cm. He needs to cut as many 3-cm cubes as possible from this rectangular block of wood. What is the total volume of the 3-cm cubes cut out?



Ans: _____ [4]

4

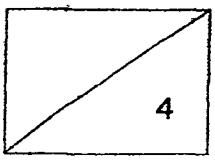
13 The figure below is made up of Square ABCD and Rhombus EBGC. Given that BC = BE, ∠CEG is 30° and ∠CFG is 42°, find ∠FGE.



Ans: _____ [4]

14 There were 2 100 English and Chinese books in a library. There were three times as many English books as Chinese books in the library. The librarian bought some more English books. After which, the percentage of English books increased to 79%. How many English books did the librarian buy?

Ans: _____ [4]



15 Baker A and Baker B had 1 495 cupcakes altogether. After Baker A sold $\frac{5}{13}$ of his cupcakes and Baker B sold $\frac{1}{5}$ of his cupcakes, both of them had an equal number of cupcakes left. How many cupcakes did Baker A have at first?

Ans: _____ [5]

5

16 Denise and Eddy shared a number of markers in the ratio 5 : 6. After Denise bought another 14 markers and Eddy gave away 4 markers, the ratio became 8 : 7. How many markers did Denise have in the end?

Ans: _____ [5]

5

17 Mr Koh had red, blue and yellow roses for sale in his nursery. There were 60 more pots of blue roses than yellow roses. He had 10 more pots of red roses than blue roses. After selling $\frac{3}{4}$ of the pots of blue roses and $\frac{1}{2}$ of the pots of yellow roses, there were 358 pots of roses left. How many pots of red roses did Mr Koh have at first?

Ans: _____ [5]

5

18 The teachers in ABC Primary School are divided equally into 3 groups, X, Y and Z. The number of male teachers in Group X is equal to the number of female teachers in Group Y. $\frac{1}{4}$ of the school male teachers are in Group Z.

(a) Find the ratio of the number of male teachers to the number of female teachers in the school.

(b) If there are 45 female teachers in Groups X and Y, how many male teachers are there in the school ?

Ans: (a) _____ [2]

(b) _____ [3]

END OF PAPER

5

Exam Paper 2014 Answer Sheet

School: RED SWASTIKA SCHOOL
Subject: PRIMARY 6 MATHEMATICS
Term: CA1

Paper 1

1)	3	6)	2	11)	2
2)	3	7)	4	12)	3
3)	2	8)	1	13)	3
4)	4	9)	1	14)	2
5)	4	10)	1	15)	4

16. 6.375

17. 4

18. 132.012

19. (20p – 17)

20. 80

21. 216

22. 3

23. 60

24. 90

25. 168

26. 3y x 5 + (2y + 15) x 2 = 15y + 4y + 30
= **19y + 30**

27. Angle PQR → 180° - 143° = 37°
Angle PRQ → 37° + 28° = 65°
Angle QPR → 180° - 65° x 2 = **50°**

28. $^1/_2$

29. 15u → 300
13u → 300 ÷ 15 x 13 = **260**

30. 3 x 1 + 2 x 4 = 11
11u → 77
8u → **56**

Paper 2

1. 4 : 5 → 12 : 15
   2 : 1 → 8 : 4
   8 : 15

2. $1230 + $60 x 4 = $1470
   $1470 ÷ 7 = $210
   $210 x 4 - $60 x 4 = **$600**

3. Now → 18k + 20
   (18k + 20) – 8k = **(10k + 20) years old**

4. Angle ABC → 180° - 55° - 51° = 74°
   Angle ABD → 74° ÷ 2 = 37°
   Angle BAD → 180° - 37° x 2 = 106°
   Angle PAB → 180° - 106° = 74°
   Angle X → 180° - 74° - 55° = **51°**

5. 128 ÷ 2 = 64
   64 ÷ 2 = **32**

6. Angle ECF → 180° - 134° = 46°
   Angle CED → (180° - 46°) ÷ 2 = 67°
   Angle BED → 180° - 67° = **113°**

7. 4u x 3 = 12u
   12 – 1 = 11
   11u → 253
   5u → 253 ÷ 11 x 5 = 115
   115 + 253 = **368**

8. 6 x $9 = $54
   12 x $7 = $84
   10 x $9 = $90
   $90 + $54 + $84 = **$228**

9. Angle FBA → 70° - 21° = 49°
   Angle ECB → 180° - 49° = 131°
   Angle CAB → (180° - 70°) ÷ 2 = 55°
   Angle FCE → 131° - 55° x 2 = 21°
   Angle X → 180° - 30° - 21° = **129°**

10. 4 – 1 = 3
    3u → 12
    10u → 12 ÷ 3 x 10 = **40**

11. 14 ÷ 2 = 7
    Triangle ABC → $^1/_2$ x 14 x 7 = 49cm^2
    Area of square ABCD → 49cm^2 x 2 = **98cm^2**

12. $50 \div 3 = 16R2$
$25 \div 3 = 8R1$
$9 \div 3 = 3$
$16 \times 8 \times 3 = 384$
$384 \times 3 \times 3 \times 3 =$ **$10368cm^3$**

13. Angle FEG → $60° - 30° = 30°$
Angle EGC → $180° - 60° \times 2 - 30° = 30°$
Angle ACB → $90° \div 2 = 45°$
Angle FGC → $180° - 42° - 45° - 60° = 33°$
Angle FGE → $33° - 30° =$ **$3°$**

14. E → $^3/_4 \times 2100 = 1575$
C → $2100 - 1575 = 525$
$100\% - 79\% = 21\%$
$21\% \rightarrow 525$
$79\% \rightarrow 525 \div 21 \times 79 = 1975$
$1975 - 1575 =$ **400**

15. A → $1 - {}^5/_{13} = {}^8/_{13}$
B → $1 - {}^1/_5 = {}^4/_5$
${}^4/_5 = {}^8/_{10}$
$10 + 13 = 23$
$23u \rightarrow 1495$
$13u \rightarrow 1495 \div 23 \times 13 =$ **845**

16.

D	:	E
5u	:	6u
+14		-4
8p	:	7p

$5u + 14 \rightarrow 8p$
$35u + 98 \rightarrow 56p$
$6u - 4 \rightarrow 7p$
$48u - 32 \rightarrow 56p$
$35u + 98 \rightarrow 48u - 32$
$48 - 35u \rightarrow 98 + 32$
$13u \rightarrow 130$
$5u \rightarrow 50$
$50 + 14 =$ **64**

17. ${}^3/_4 \times 60 = 45$
$358 \rightarrow 7u + 15 + 60 + 10 = 7u + 85$
$7u \rightarrow 358 - 85 = 273$
$4u \rightarrow 273 \div 7 \times 4 = 156$
$156 + 60 + 10 =$ **226**

18. (a) M : F
4 : 5
(b) $3u$ (F) → 45
$45 \div 3 \times 4 =$ **60**