NANYANG PRIMARY SCHOOL

FIRST SEMESTRAL EXAMINATION 2007

PRIMARY 5

MATHEMATICS

DURATION: 2 HOURS 15 MINUTES

Booklet A	/ 20
Booklet B	/ 30
	/ 50

Total:	/

Name: _____)

Class: Primary 5 (   )

Date: 10 May 2007

Parent's Signature: _____

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

FOLLOW ALL INSTRUCTIONS CAREFULLY.

ANSWER ALL QUESTIONS.

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 Sheet.   (20 marks)

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1   What is the product of 7986 and 12?

(1)   23 958

(2)   83 622

(3)   84 722

(4)   95 832

2   Samy is $\frac{2}{3}$ as old as Yong Shen.   What is the ratio of Samy's age to
Yong Shen's age?

(1)   2 : 3

(2)   3 : 2

(3)   2 : 5

(4)   5 : 2

3   In a music class, there are 4 more girls than boys.   There are 40
children in the class.   Find the ratio of the number of boys to the
number of girls in the class.

(1)   9 : 11

(2)   11 : 9

(3)   9 : 20

(4)   20 : 9

9ᴧ

4   The length of the sides of a triangle are in the ratio of 2 : 3 : 4.   The length of the shortest side is 10 cm.   What is the length of the longest side?

(1)   15 cm

(2)   20 cm

(3)   45 cm

(4)   90 cm

5   Sakura bought $1\frac{4}{5}$ kg of grapes. Nikita bought $\frac{2}{3}$ kg less grapes. How much grapes did they buy altogether?

(1) $1\frac{2}{15}$ kg

(2) $2\frac{7}{15}$ kg

(3) $2\frac{14}{15}$ kg

(4) $3\frac{3}{5}$ kg

6   Mother bought 5 m of cloth.   She used $\frac{3}{8}$ of it to make a skirt.   How much cloth had she left?

(1) $1\frac{7}{8}$ m
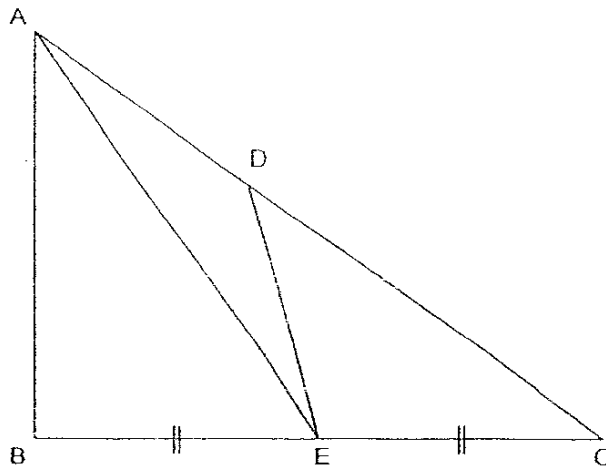
(2) $3\frac{1}{8}$ m

(3) $4\frac{5}{8}$ m

(4) $5\frac{3}{8}$ m

7   Mrs Bean spent $\dfrac{1}{4}$ of her salary on transport and $\dfrac{2}{9}$ of the remainder on food. What fraction of her salary was left?

(1) $\dfrac{3}{18}$

(2) $\dfrac{19}{36}$
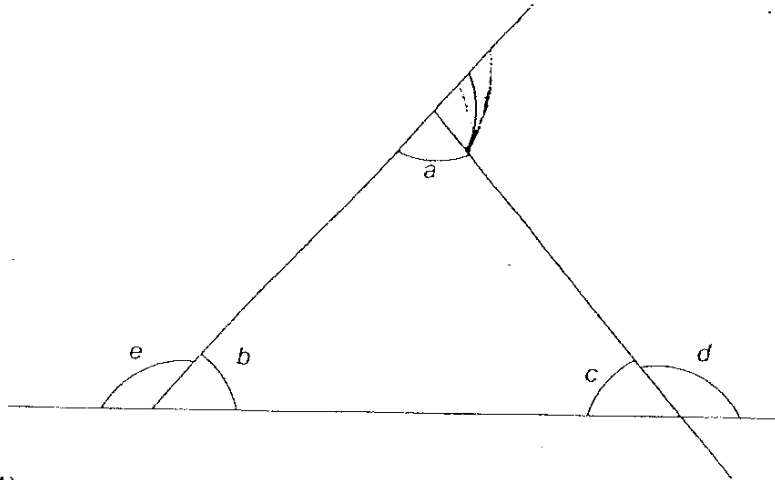
(3) $\dfrac{7}{12}$

(4) $\dfrac{17}{18}$

8   ABC is a right-angled triangle and BE = EC. Triangle ABE has an area of 15 cm². What is a possible area for Triangle AEC?

(1)   5 cm²

(2)   10 cm²

(3)   15 cm²

(4)   20 cm²

9_4

9 In the figure below, which angle is the same as ∠a + ∠b?

(1) ∠c

(2) ∠d

(3) ∠e

(4) ∠f

10 In the figure below, ABCD is a straight line. Triangle CDE is an isosceles triangle. Find ∠x.
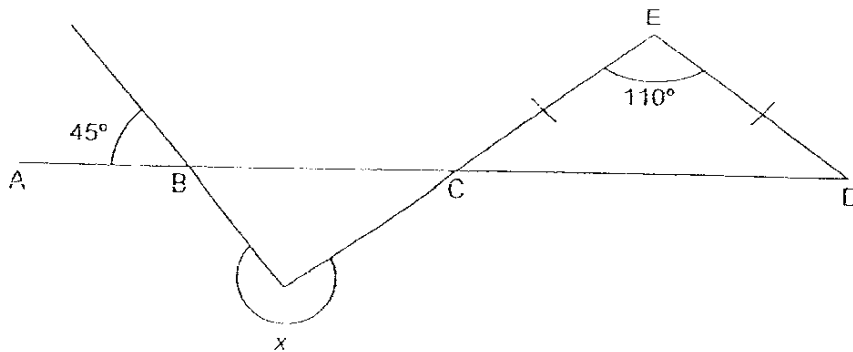
(1) 80°

(2) 100°

(3) 260°

(4) 295°

95

4

11   What is the value of $3 \times (24 + 4) - 28 \div 7 + 6$?

(1)   14

(2)   74

(3)   86

(4)   90

12   Si Hui and Tasha had an equal number of stickers.   Si Hui lost 48 of her stickers while Tasha lost 60 of her stickers.   Si Hui now had twice as many stickers as Tasha.   How many stickers did each of them have at first?

(1)   72

(2)   84

(3)   96

(4)   114

13   Kim's monthly pocket money is $39.   She spends $13 each month. How many months will she take to save $780?

(1)   20

(2)   30

(3)   52

(4)   60

96

5

14 Gordon spent $\frac{1}{8}$ of the day on his homework. Halim spent 6 hours more than Gordon on his homework. What fraction of the day did Halim spend on his homework?

(1) $\frac{3}{8}$

(2) $\frac{6}{8}$

(3) $5\frac{7}{8}$

(4) $6\frac{1}{8}$

15 Azizah cuts a piece of ribbon into 60 pieces, each $\frac{1}{4}$ m. How many pieces will she get if she cuts the ribbon into $\frac{1}{5}$ m pieces?

(1) 3

(2) 12

(3) 15

(4) 75

Name: _____)   Class: Pr 5 (

P5 SA1 2007

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)

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16   What is the missing number in the box?

6 248 107 = 6 000 000 + ☐ + 40 000 + 8000 + 107

Ans: _____ . _____thousand

---

17   Write eight million, thirty-four thousand and six in figures.

Ans: _____ , _____

---

18   The mass of a tennis ball when rounded off to the nearest tenth is 58.0 g. What is the lowest possible mass of the tennis ball?

Ans: _____ g

19   Mrs Lim needs to make 148 costumes for her pupils to take part in a competition.   If each costume costs $100, how much does she have to pay?

Ans: $_____

---

20   What is the missing number in the box?

$72 \div \boxed{} + 8 \times 4 - 3 = 38$

Ans: _____

---

21   What fraction of 4 hours is 35 minutes?   Give your answer in its simplest form.

Ans: _____

---

22   Auntie Rosie baked a chocolate cake.   Her children ate $\dfrac{1}{4}$ of the cake and she gave $\dfrac{1}{6}$ of it to each of her 3 friends.   What fraction of the cake was left?

100

Ans: _____

23 What fraction of 4.5 km is 750 m? Express your answer in its simplest form.
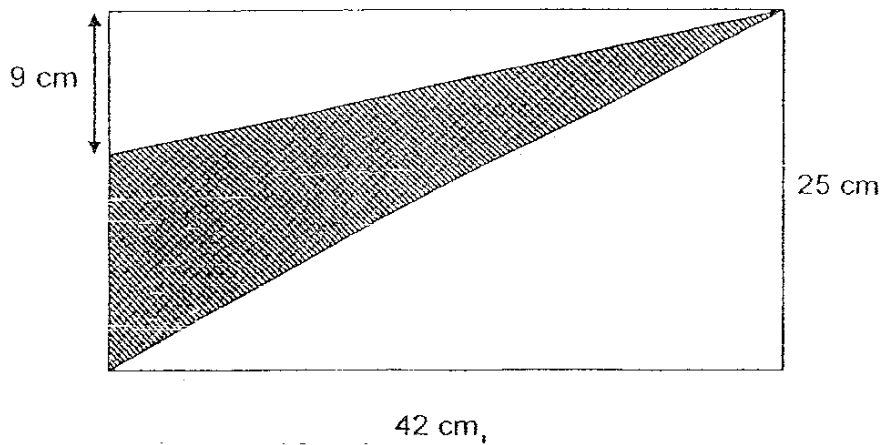
Ans: _____

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24 The mass of a packet of flour is 2 kg 40 g and the mass of a packet of sugar is 3 kg. Find the ratio of the mass of sugar to the mass of flour. Leave your answer in its simplest form.

Ans: _____

---

25 The figure below is a rectangle. Find the area of the shaded part.

9 cm

25 cm

42 cm

Ans: _____ cm²

Questions **26** to **35** 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)

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26 Arif bought a television set that cost $1248 and a computer that cost $1480. He made a down payment of $250 and paid the rest in 10 monthly instalments. How much did he pay each month?

Ans: $_____

---

27 David paid $45 for a model car. The model plane was $31 more expensive than the model car. He bought 2 model cars and 5 model planes. How much did he pay in total?

Ans: $_____

---

28 Gina has 5877 crystal beads. She uses 67 crystal beads to make a necklace. What is the maximum number of such necklaces that she can make?

Ans: _____

---

29   A tank was filled with 105 litres of water.   The water was pumped out at

a rate of 5 litres per minute.   How long would it take to pump out $\frac{4}{7}$ of

the water in the tank?

Ans: _____   _____min

30   The time shown on Hui Zhi's watch is 3.00 p.m.   If the minute hand
turns 450° clockwise, what time will it be?

Ans: _____   _____ p.m.

31   Max and Sean shared $350 in the ratio of 1 : 4.   Each spent half of his
money.   How much more money than Max did Sean have left?

Ans: $_____   ___ ____ ___

32   The ratio of the number of men to the number of women to the number of children in a cinema was 5 : 4 : 2.   If there were 36 more women than children, how many men were there in the cinema?
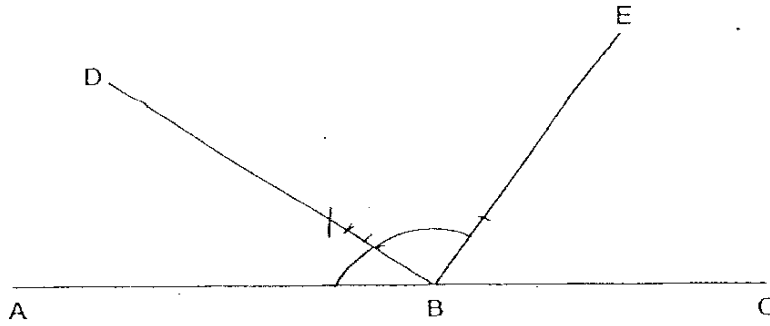
Ans: _____

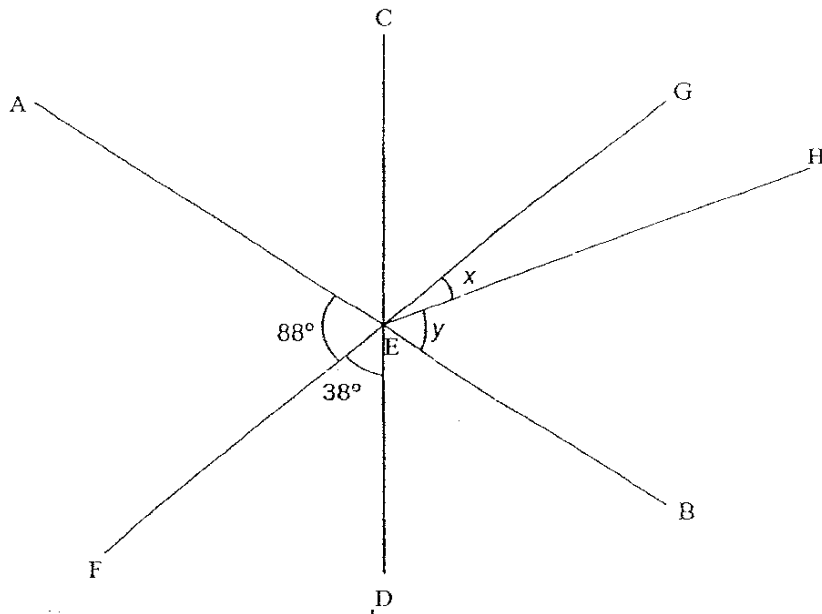33   ABCD is a square and BD is 38 m.   Find the area of triangle ABD.
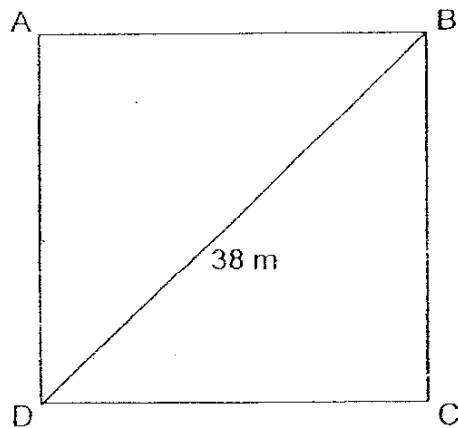
Ans: _____ m²

34 In the figure below, ABC is a straight line.
∠ABE = 128° and ∠CBD = 146°.   Find ∠DBE.

Ans: _____ °

---

35 AEB, CED and FEG are straight lines. ∠y is 3 times of ∠x.

(a) Find ∠ DEB.

(b) Find ∠y.

(a) _____ °

(b) _____ °

105

13

For questions 36 to 48, 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)

---

36   In a group of 100 pupils, 30 of them passed their Science test and 95 of them passed their Mathematics test.   3 of them did not pass both tests. How many pupils passed the tests for both subjects?

Ans: _____ [3]

---

37   Mickey had $54.   Nicholas had $649.   After their mother gave each of them an equal amount of money, Mickey had $\frac{1}{8}$ as much money as Nicholas.   How much money did their mother give each of them?

106

Ans: _____ [3]

14

38   Muthu's age is $\frac{1}{7}$ of his mother's age now.   His mother will be 50 years old in 8 years' time.

(a) How old is Muthu now?

(b) In how many years' time will Muthu be $\frac{1}{5}$ of his mother's age?

Ans: (a) _____ [1]

(b) _____ [2]

39   Ken, Mark and Lolita shared some marbles.   Ken had 120 marbles more than Mark.   If Ken gave $\frac{2}{5}$ of his marbles to Mark, both of them would have the same number of marbles.   Lolita had $\frac{1}{3}$ of what Ken and Mark had.   What was the ratio of the number of marbles Lolita had to the total number of marbles?

107

15

40 On Monday, Susie read $\frac{1}{6}$ of a book. On Tuesday, she read 35 pages of the book. On Wednesday, she read $\frac{3}{5}$ of the remaining book, leaving 24 pages of the book unread. How many pages of the book did she read?

Ans: _____ [3]

41 A book has 254 pages. How many pages are there with the digit "4" on the page numbers?

Ans: _____ [3]

42   At a party, the ratio of the number of girls to the number of boys is 3 : 1. If each girl is given 3 sweets and each boy is given 4 sweets, a total of 234 sweets will be needed. How many children are at the party?

Ans: _____ [4]

43 MNOP is a rectangle 30 cm by 18 cm. QRO is a straight line and PQ = PS. The ratio of MQ to PQ is 1 : 2. Find the area of the shaded part.

μ○
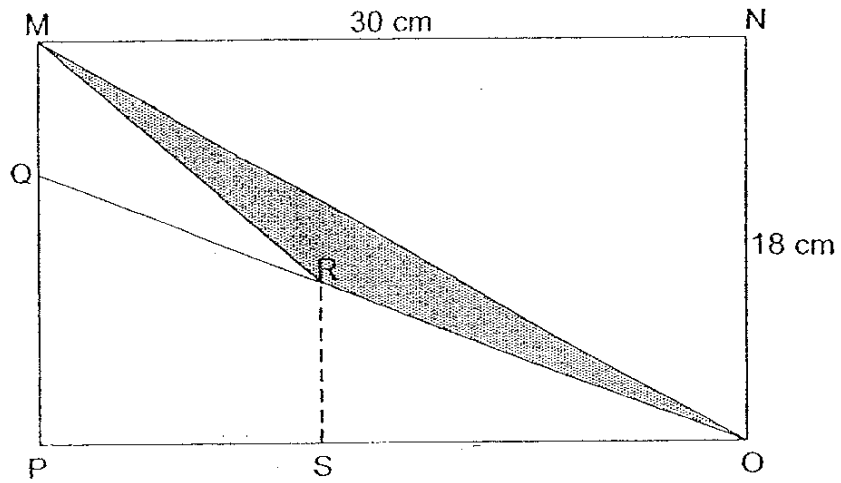
Ans: _____ [4]

44 In a bookshop, there were thrice as many blue pens as red ones. Mrs Lee sold $\frac{1}{4}$ of the blue pens to the pupils and 120 blue pens to the teachers. Mrs Lee also sold $\frac{1}{4}$ of the red pens to the teachers. The number of red pens left was $\frac{3}{8}$ of the total number of pens left. Express the number of red pens sold as a fraction of the number of blue pens sold. (Express your answer in its simplest form.)

Ans: _____ [4]

45   For every 12 computer games played, a discount of $5 was given.
      Josh paid $60 and he received a change of $2.   If each game cost $3,
      how many computer games did he play?

Ans: _____ [5]

46   The figure below shows a triangle and a rectangle overlapping each
      other. The shaded area is a square.   The area of the shaded part is $\frac{1}{8}$
      of the area of the rectangle.   Find the ratio of the unshaded area to the
      shaded area.   (Express your answer in its simplest form.)
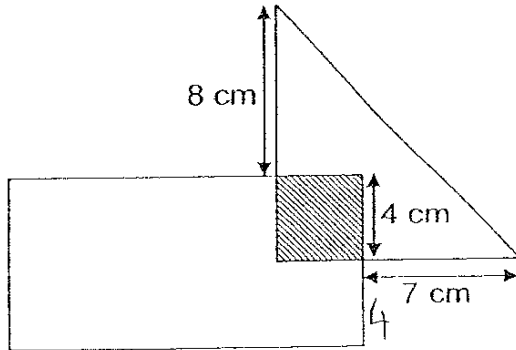
113

Ans: _____ [5]

47   Mrs Tan baked some muffins one morning. She put 12 in a bag and packed another 38 in a container. She sold $\frac{1}{5}$ of the remaining muffins to Mrs Rosnah and divided the rest among herself and 3 friends. She gave $\frac{1}{3}$ of her share to her children. If her children had 10 muffins, how many muffins did she bake that morning?

Ans: _____ [5]

48 The number of beads in Box A and Box B are in the ratio of 1 : 2. All the beads in Box A are green beads. In Box B, the ratio of the number of green beads to the number of yellow beads is 3 : 4. If there are 6 more green beads in Box A than in Box B, find the total number of green beads in both boxes.

Ans: _____ [5]

16

END OF PAPER

Nanyang Primary School

Primary 5 Maths SA1 Exam (2007)

Answer Key

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

16. 200

17. 8 034 006

18. 57.95g

19. $14 800

20. 8

21. $\dfrac{7}{48}$

22. $\dfrac{1}{4}$

23. $\dfrac{1}{6}$

24. 25 : 17

25. 336cm²

26. 24 780
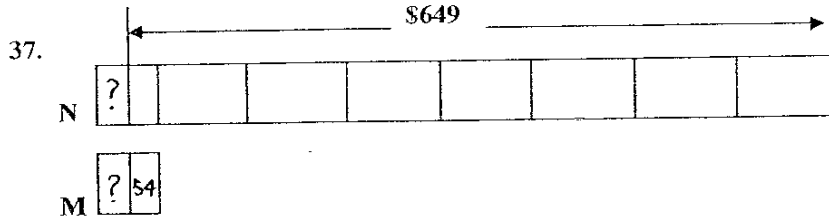
27. $4.70

28. 87

29. 29mins

30. 4.15pm

31. 105

32. 90

33. 361cm²

34. 94°

35a. 54°
35b. 66°

36. $100 - 3 = 97$
    $97 - 95 = 2$ *(fail in Maths only)*
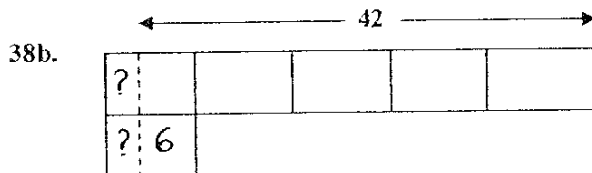 $97 - 30 = 67$ *(fail in Science only)*
    $97 - 2 - 67 = 28$ pupils

37.

    $7u = 649 - 54 = 595$
    $1u = 595 \div 7 = 85$
    $85 - 54 = \$31$
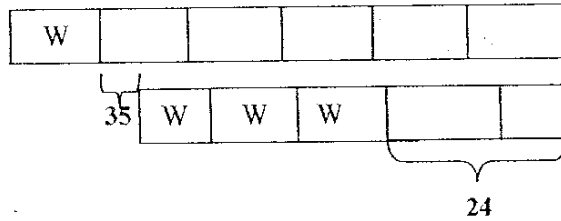
38a. $50 - 8 = 42$
    $42 \div 7 = 6$ years old

38b.

    $4u = 42 - 6 = 36$
    $1u = 36 \div 4 = 9$
    $9 - 6 = 3$ years

39. $120 \div 2 = 60$
    $2u = 60$
    $1u = 30$
    Ken + Mark
    $6u = 6 \times 30 = 180$
    Lotia
    $\dfrac{1}{3} \times 180 = 60$
    Total $= 180 + 60$
           $= 240$
           $= 60 : 240$
           $= 1 : 4$

40.

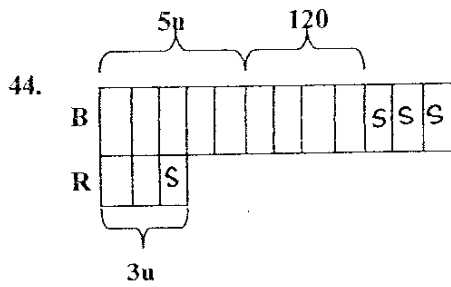$$\frac{24}{2} \times 5 = 60$$

$$60 + 35 = 95$$

$$\frac{95}{5} \times 6 = 114$$

$$114 - 24 = 90 \text{ pages}$$

41. Page 1 to Page 100 = 19
Page 101 to 200 = 19
Page 201 to Page 254 = 15
$19 + 19 + 15 = 53$ pages

42. $3 \times 3 = 9$
$9 + 4 = 13$
$234 \div 13 = 18$
$18 \times 4 = 72$ children

43. $MQ = \dfrac{1}{3} \times 18 = 6\text{cm}$

$PQ = 18 - 6 = 12\text{cm}$
$PS = PQ = 12\text{cm}$

$\dfrac{1}{2} \times 6 \times 12 = 36\text{cm}^2$

$\dfrac{1}{2} \times 30 \times 12 = 180\text{cm}^2$

$\dfrac{1}{2} \times 30 \times 18 = 270\text{cm}^2$

$270 - 36 - 180 = 54\text{cm}^2$

44.

$$4u \longrightarrow 120$$

Red sold
$$1u \longrightarrow 120 \div 4 = 30$$

Blue sold
$$7u \longrightarrow 7 \times 30 = 210$$

$$\text{Fraction} = \frac{30}{210}$$
$$= \frac{1}{7}$$

45. $60 - $2 = 58
$12 \times $3 = 27
$58 - $31 = 27
$27 \div 3 = 9 \text{ games}$
$9 + 12 = 21 \text{ games}$

46. Area of square $= 4 \times 4 = 16 \text{cm}^2$

Area of Δ $= \dfrac{1}{2} \times 12 \times 11$
$= 66 \text{cm}^2$

Area of rect. $= 8 \times 16 = 128 \text{cm}^2$
Unshaded area $= 128 + 66 - 16 - 16 = 162 \text{cm}^2$

Unshaded area : shaded area
162 : 16
81 : 8

47.

12	28	sold				

$$\underbrace{}_{30}$$
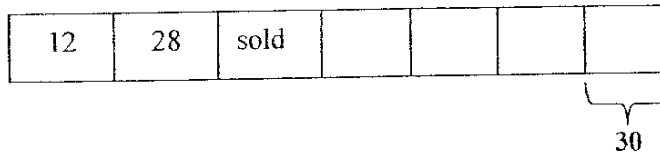
3 x 10 = 3
5 x 30 = 150
150 + 12 + 38 = 200 muffins

48. **B**

Green : Yellow
  3   :   4
  6   :   8 (14u)

A   :   **B**

1   :   2
7   :   14

7u − 6u = 1u
1u = 6 beads
7u + 6u = 13u
13u = 13 x 6 = 78 beads