



Anglo-Chinese School (Primary)

P5 MATHEMATICS 2007

END-OF-YEAR EXAMINATION

BOOKLET A

Name: _____ ()

Class: Primary 5

Date: 30 October 2007

Duration of paper: 2 h 15 min

**THIS BOOKLET CONTAINS 7 PAGES.
DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.
FOLLOW ALL INSTRUCTIONS CAREFULLY.**

SECTION A - Multiple Choice Questions (20 MARKS)

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 (OAS).

1. What is four hundred and two thousand, eight hundred and one?

- (1) 42 801
- (2) 402 801
- (3) 420 801
- (4) 4 002 801

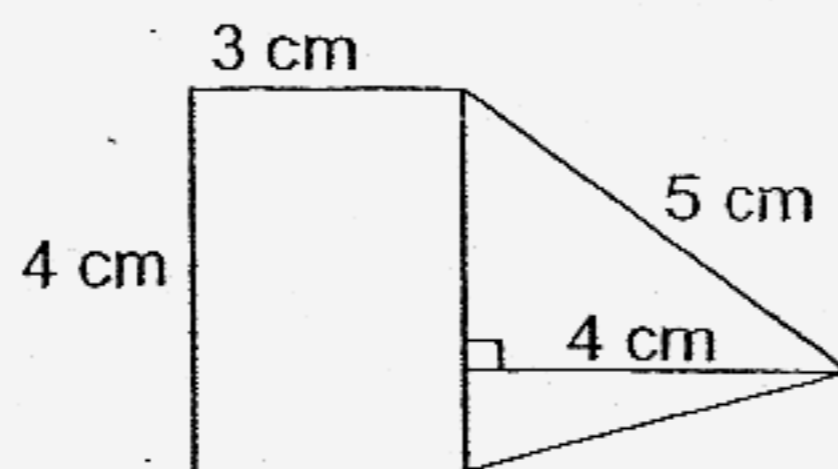
2. In 736×20 , what is the digit in the hundreds place?

- (1) 1
- (2) 2
- (3) 4
- (4) 7

3. Express 250 as a fraction of 750.

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

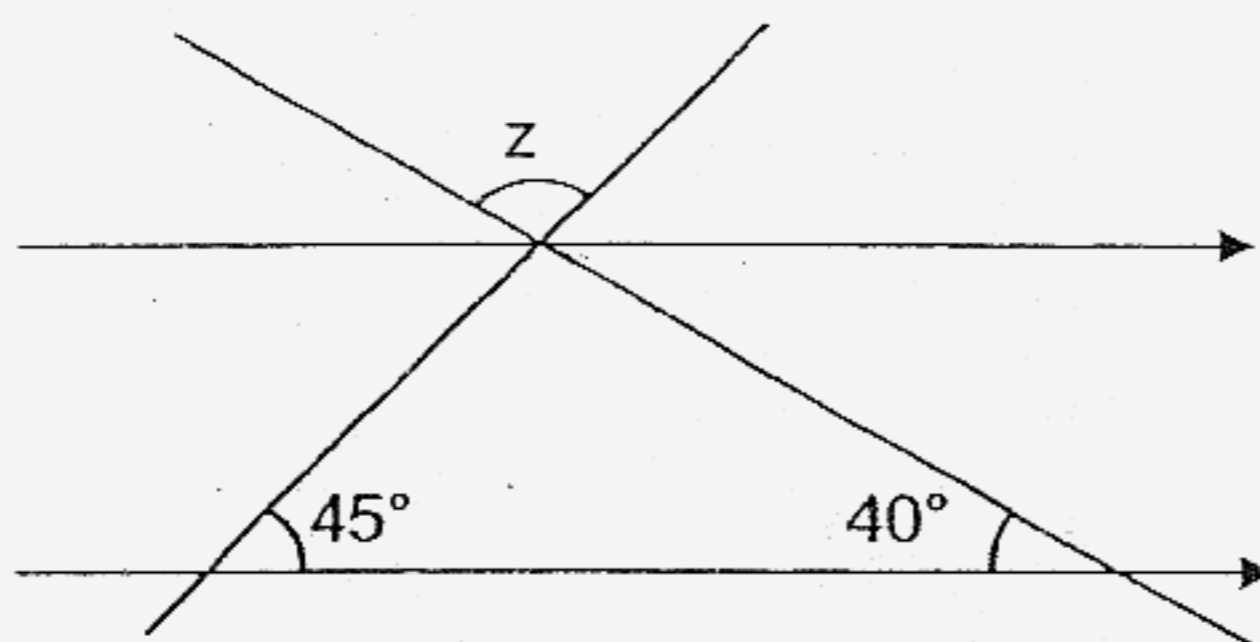
4. The figure below (not drawn to scale) is made up of 1 rectangle and 2 triangles. Find the area of the whole figure.



- (1) 20 cm^2
 (2) 24 cm^2
 (3) 27 cm^2
 (4) 32 cm^2
5. The ratio of the number of boys to the total number of children in the library was 3 : 5. Which one of the following could be a possible number of the girls in the library?

- (1) 3
 (2) 4
 (3) 5
 (4) 7

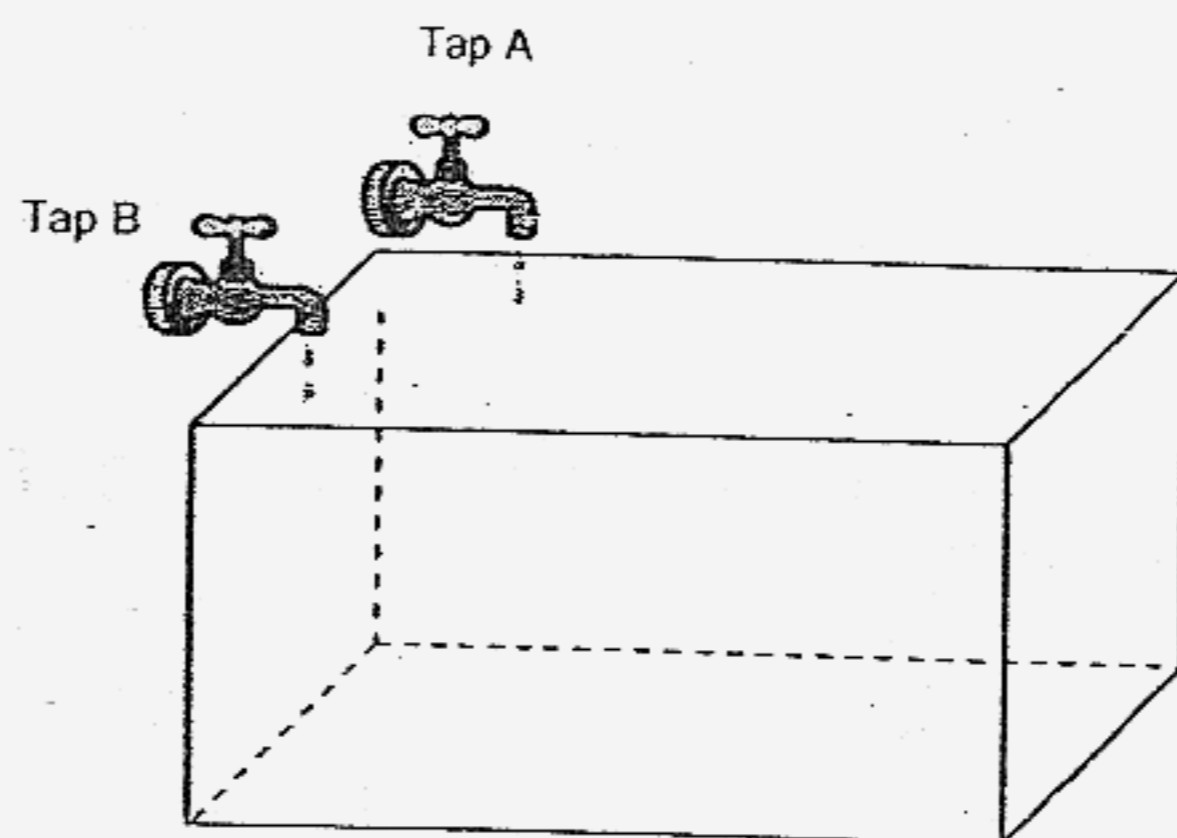
6. The figure below is not drawn to scale. Find the value of z .



- (1) 85°
 (2) 90°
 (3) 95°
 (4) 100°

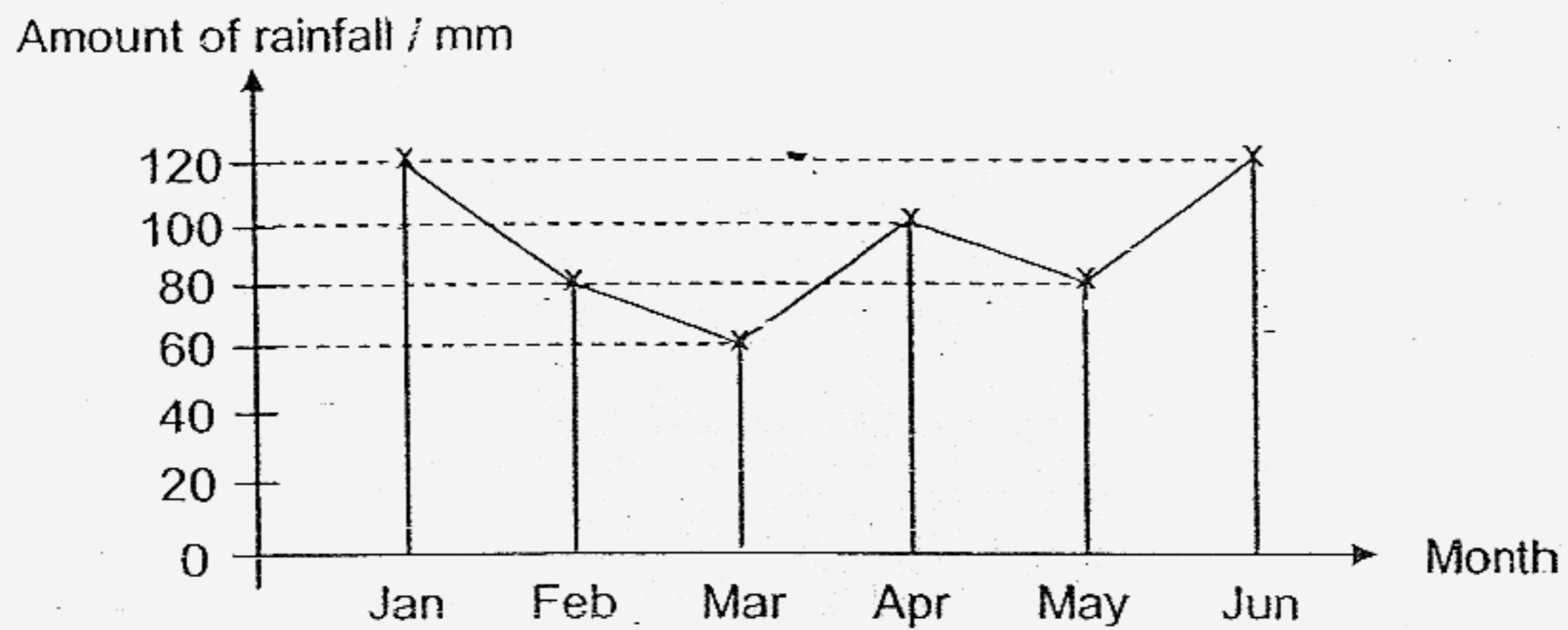
7. If 600 g of sugar costs \$2.40, how much will 1 kg of sugar cost?
- (1) \$1.44
 - (2) \$4.00
 - (3) \$4.80
 - (4) \$24.00
8. In a class of 40 students, 30% of the students failed their Science test. How many students passed the Science test?
- (1) 10
 - (2) 12
 - (3) 28
 - (4) 30
9. How many different handshakes can be made in a party of 7 children, if each child shakes hands with every other child only once?
- (1) 6
 - (2) 11
 - (3) 15
 - (4) 21
10. Complete the number pattern.
- 1 135, 1 385, _____, 1 885, 2 135
- (1) 1 435
 - (2) 1 535
 - (3) 1 635
 - (4) 1 735

11. Peter wants to fill up his rectangular water tank measuring 150 cm by 30 cm by 40 cm to its brim. Tap A can flow out 5 litres of water per minute and Tap B can flow out 4 litres of water per minute. If both taps are turned on at the same time how long does it take to fill up the whole tank?



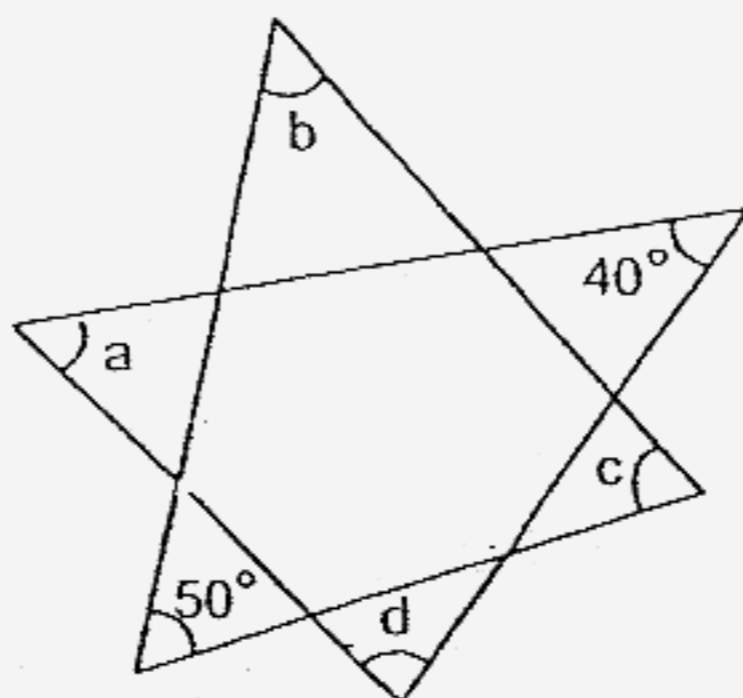
- (1) 9 minutes
(2) 20 minutes
(3) 36 minutes
(4) 45 minutes
12. The sum of 2 numbers is 240. If the bigger number is three times as big as the smaller number, find the difference between the 2 numbers.
- (1) 60
(2) 80
(3) 120
(4) 180

13. The line graph below shows the amount of rainfall recorded in Singapore over a period of 6 months.



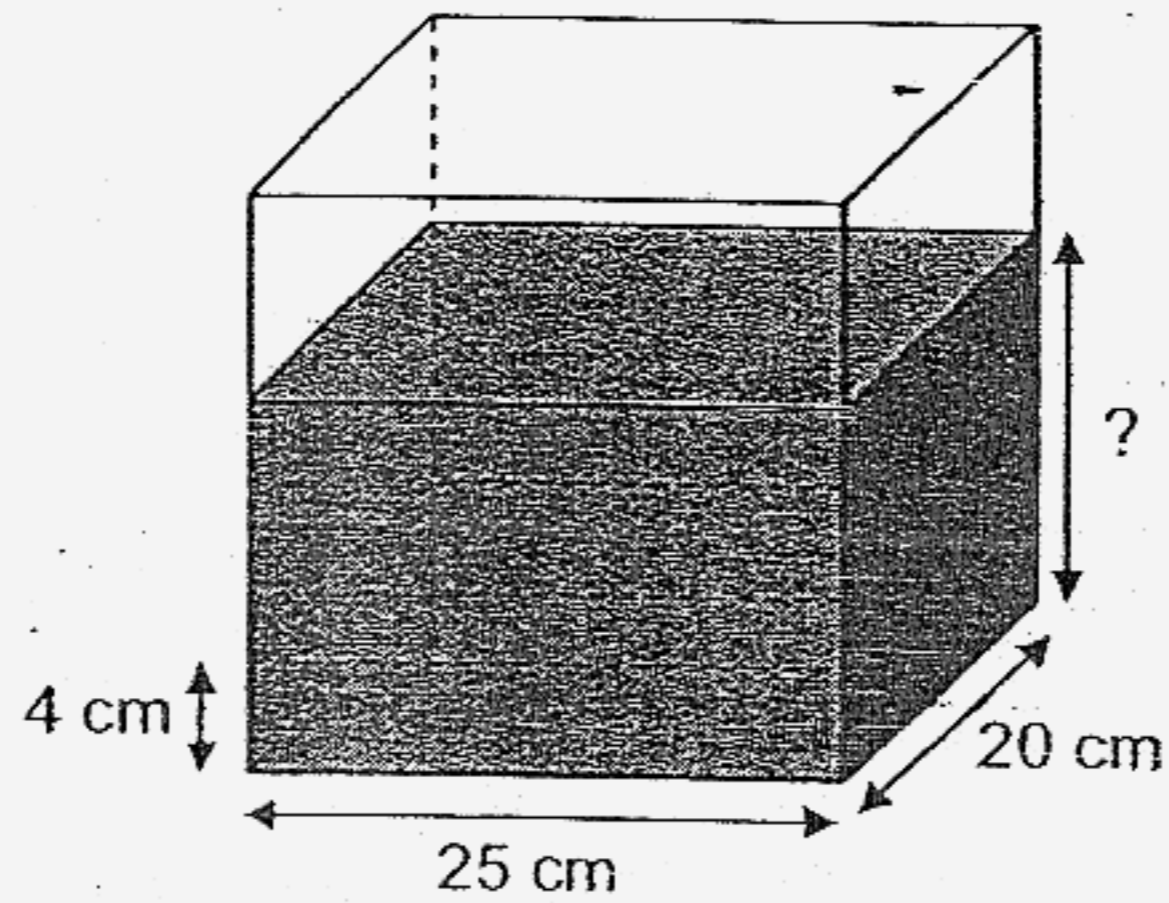
The average amount of rainfall per month is approximately _____.

- (1) 80 mm
 - (2) 93 mm
 - (3) 112 mm
 - (4) 560 mm
14. The figure below is made up of two triangles. Find $\angle a + \angle b + \angle c + \angle d$.



- (1) 90°
- (2) 180°
- (3) 200°
- (4) 270°

15. A rectangular tank has a base of 25 cm by 20 cm. The height of the water level in the container is 4 cm at first. What is the height of the water level after 5 litres of water is poured into the tank?



- (1) 10 cm
- (2) 14 cm
- (3) 20 cm
- (4) 25 cm



Anglo-Chinese School (Primary)

P5 MATHEMATICS 2007

END-OF-YEAR EXAMINATION

BOOKLET B

Name: _____ () Class: Primary 5 _____

Date: 30 October 2007

Duration of paper: 2 h 15 min

Parent's/Guardian's signature

Section	Maximum Marks	Marks Obtained
Section A. Multiple Choice Questions	20	
Section B. Shorts answers: Part 1	10	
Section B. Shorts answers: Part 2	20	
Section C. Problem Sum	50	
Total	100	

THIS BOOKLET CONTAINS 20 PAGES.

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SECTION B - Short Answers (30 MARKS)

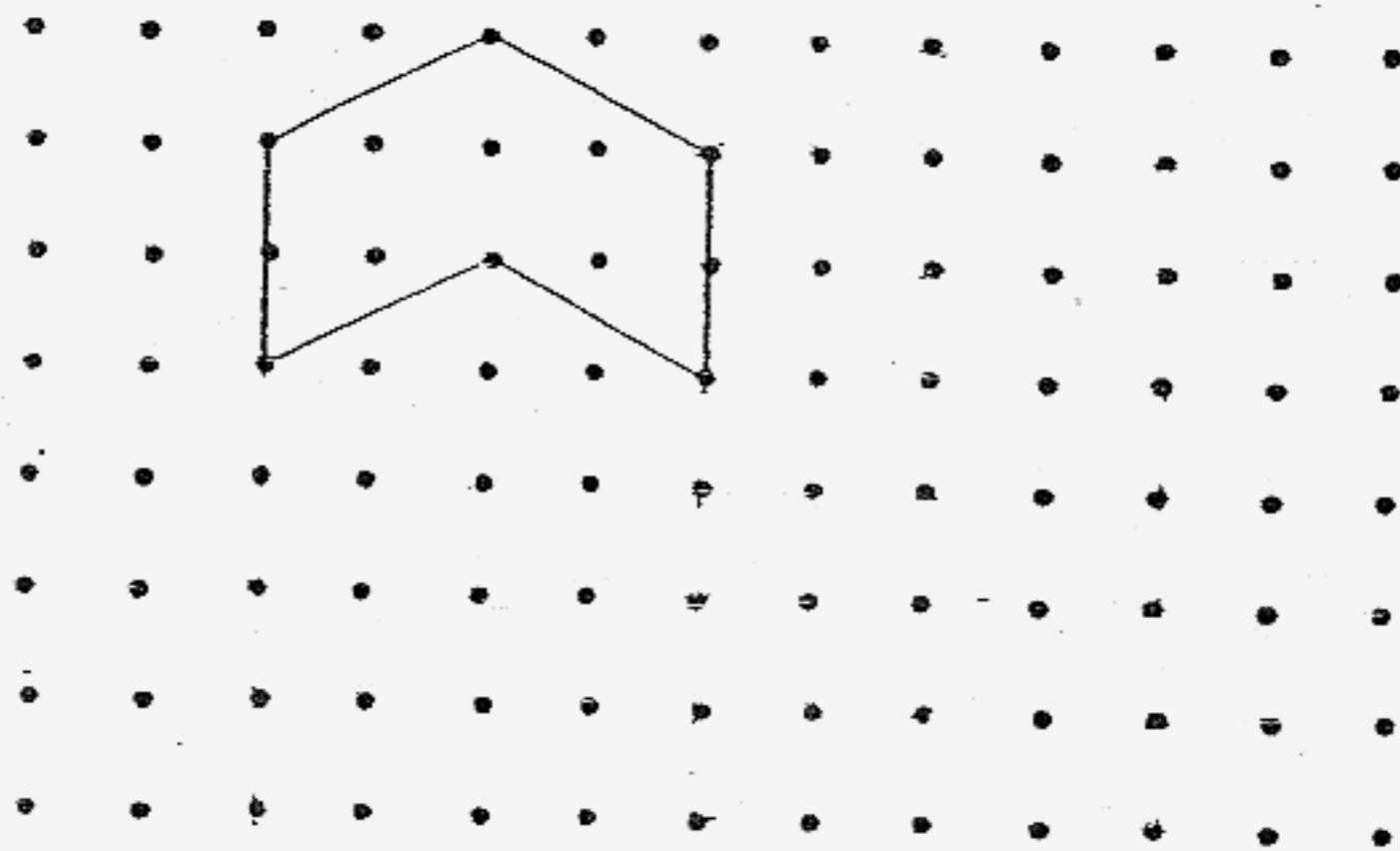
Part I (10 × 1 mark)

Questions 16 to 25 carry 1 mark each. Write your answer in the space provided. Give your answers in the units stated.

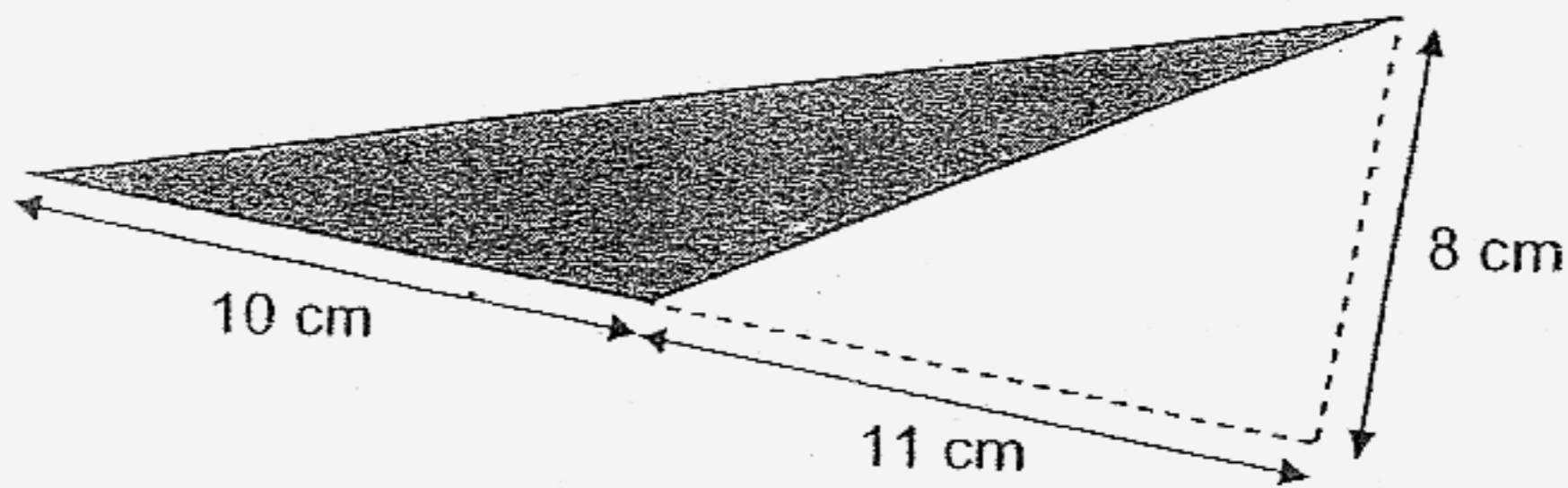
16. What is the value of $200 - 50 \times 3 \div 5$?

Answer: _____

17. The pattern in the box shows part of a tessellation. Extend the tessellation by drawing five more unit shapes in the spaces provided in the box.



18. Find the area of the shaded triangle shown below.



Answer: _____ cm^2

19. What is the missing number in the box?

$$\square : 14 = 42 : 84$$

Answer: _____

20. John is standing in a field facing the West. He turns 270° anticlockwise. Which direction is he facing now?

Answer: _____

21. What is the value of $1.75 + 2.96$?

Answer: _____

22. Express $\frac{7}{8}$ as a percentage.

Answer: _____

23. A school has a student population of 1 700. How many of the students are boys if 42% of the population are girls?

Answer: _____

24. Jane obtained the following marks for her mid-year examinations:

Mathematics:	68 marks
Science:	74 marks
English Language:	63 marks
Chinese Language:	85 marks

What is her average mark for the mid-year examinations?

Answer: _____

25. Find the sum of $1 + 2 + 3 + \dots + 8 + 9 + 10$.

Answer: _____

Part II (10 × 2 marks)

Questions 26 to 35 carry 2 marks each. Show all workings clearly.
Write your answer in the space provided. Give your answers in the units stated
and in its simplest form whenever possible.

26. Shawn has \$1 500 to purchase music CDs. If each CD costs \$18, what
will be the maximum number of CDs that he can purchase?

Answer: _____

27. Express $6\frac{3}{20}$ as a decimal.

Answer: _____

28. David went to a shop to buy a cellphone. The diagram below shows the cellphone that he wants to purchase and its price tag.



The Goods and Services Tax (GST) is 7%. How much will David have to pay for the cellphone after GST?

Answer: \$ _____

29. The total mass of 7 men and 4 women is 647 kg. If the average mass of the 4 women is 48 kg, find the average mass of the 7 men.

Answer: _____ kg

30. Chee Keong saw a discount advertisement poster at a durian stall:

Special Price for Bulk Order	
First 20 kg	\$10.50 per kg
Next 20 kg	\$9.20 per kg
Every kg thereafter	\$7.50 per kg

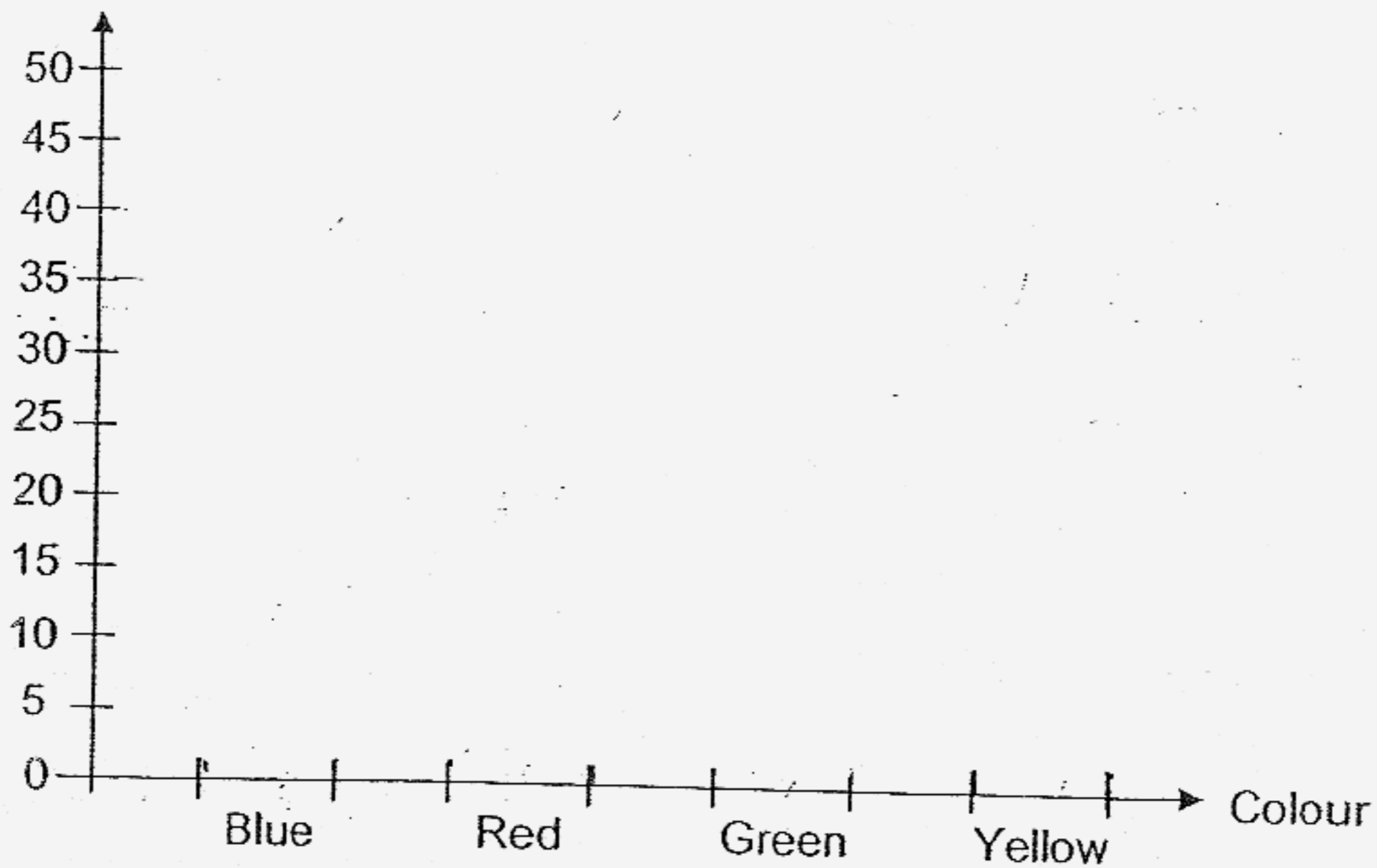
How much would Chee Keong have to pay if he purchased 44 kg of durians from the stall?

Answer: \$ _____

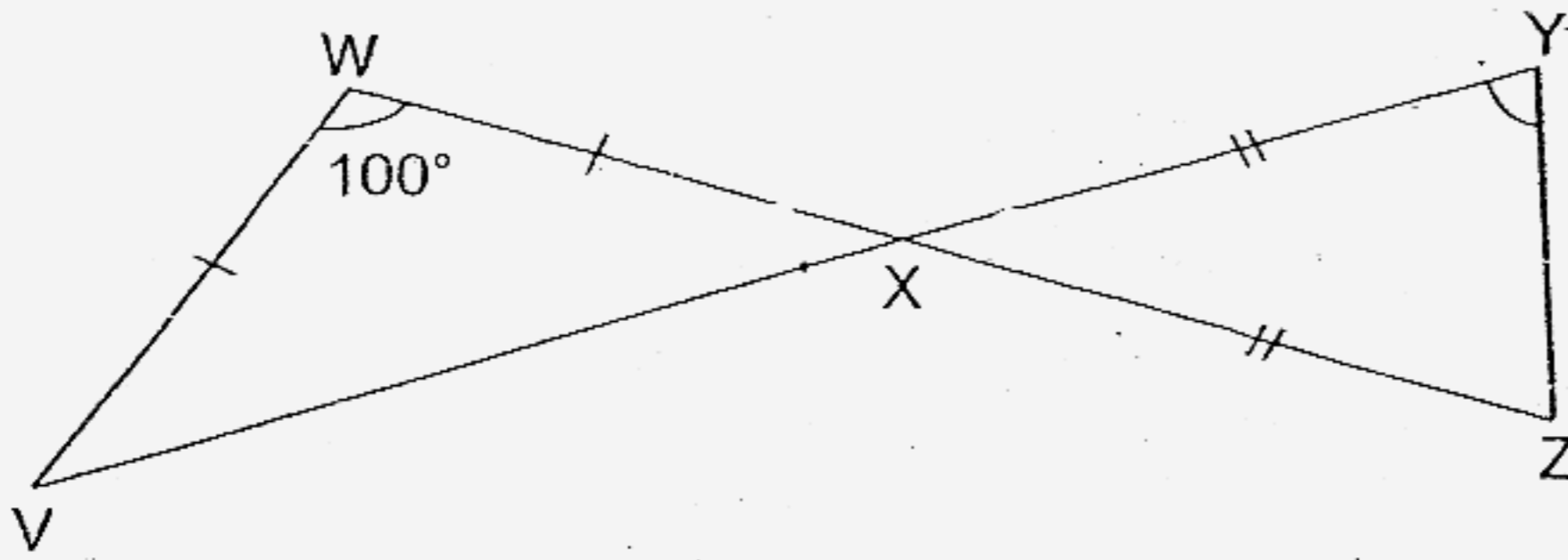
31. Bryan has some marbles of which 35 are blue. There are 5 more red marbles than blue marbles. The green marbles is 20 fewer than the blue marbles and there are as many yellow marbles as the red marbles.

From the above information, draw the bar graph below.

Number of marbles

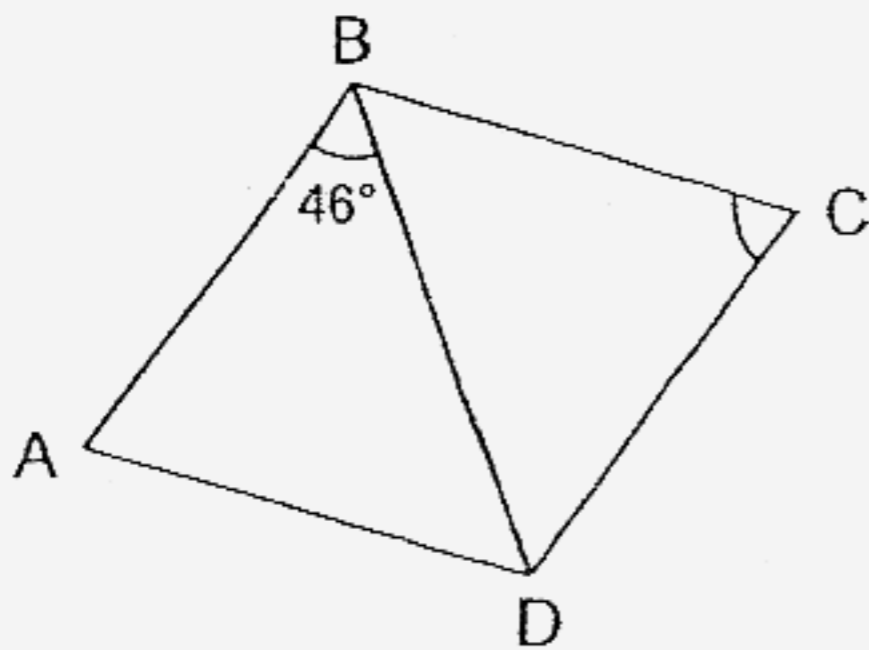


32. The figure below (not drawn to scale) is made up of two triangles VWX and XYZ . WXZ and VXY are straight lines. Find the value of $\angle XYZ$.



Answer: _____

33. $ABCD$ is a rhombus and $\angle ABD$ is 46° . Find $\angle BCD$.



Answer: _____

34. Sam is provided with an equilateral triangle (see figure 1).



Figure 1

His teacher asked him to tessellate the triangle such that the outline of the completed tessellation is as shown in figure 2.



Figure 2

Draw on Figure 2 how he could tessellate the triangle to form the outline.

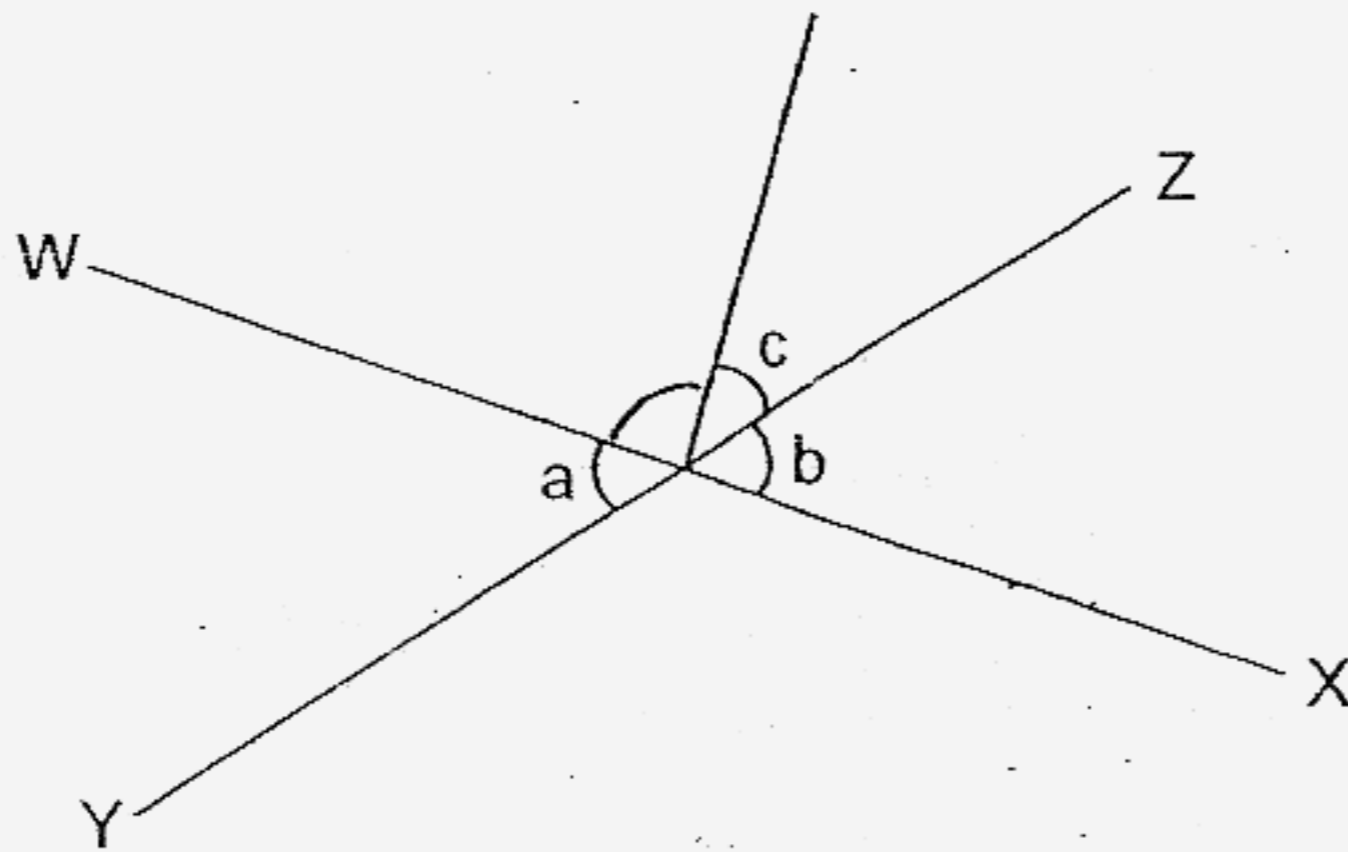
35. When 12 pails of water are poured into a tank, the tank is $\frac{3}{4}$ filled. What is the ratio of the capacity of 1 pail to the capacity of the whole tank?

Answer: _____

SECTION C - Problem Sums (50 MARKS)

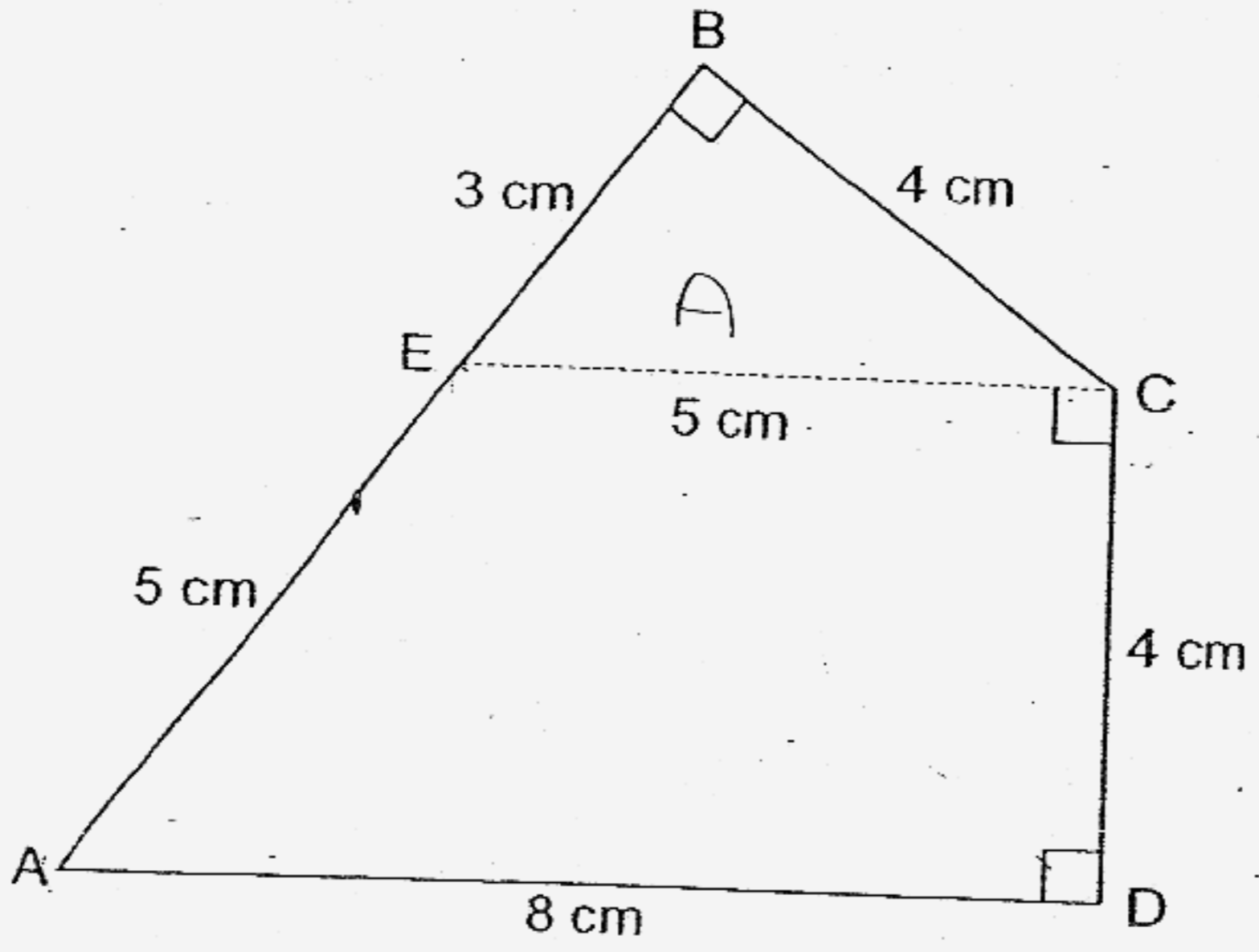
For each question from 36 to 48, show your working and mathematical statements clearly in the space below each question. Write your answer in the answer space provided. Give your answers in the units stated and in its simplest form whenever possible. Marks awarded are shown in the brackets [].

36. WX and YZ are straight lines. Given that $\angle a + \angle b = 130^\circ$ and $\angle b + \angle c = 95^\circ$. Find $\angle c$.



Answer: _____ [3]

37. The figure below shows a four-sided figure ABCD. AEB is a straight line. Find the area of the figure.



Answer: _____ [3]

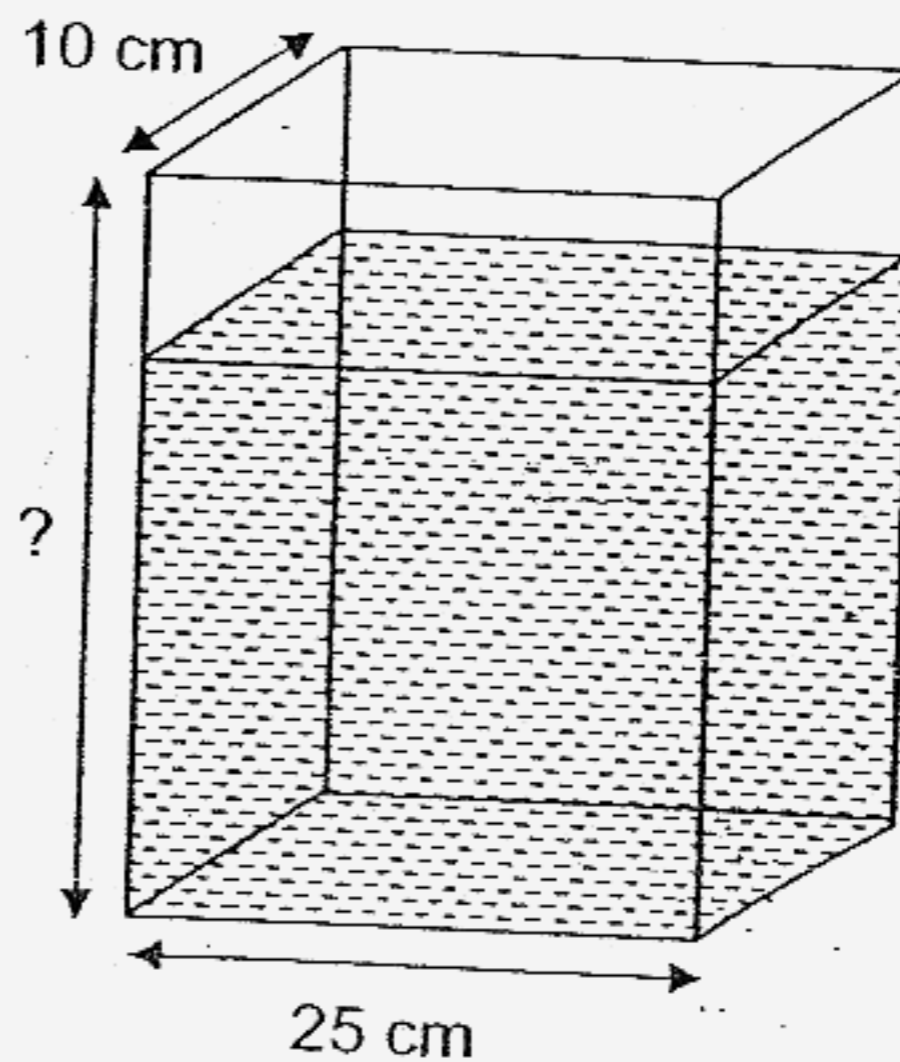
38. The ratio of the number of stamps that Alex has to the number of stamps that Daniel has is 7 : 6. The ratio of the number of stamps that Daniel has to the number of stamps that John has is 3 : 5. What is the ratio of the number of stamps that John has to the total number of stamps that the three boys have?

Answer: _____ [3]

39. If Jill buys 3 kg of durians, she will have \$30.40 left. If she buys 5 kg of durians, she will have \$18.80 left. How much money does Jill have?

Answer: _____ [3]

40. A rectangular container of length 25 cm and width 10 cm is $\frac{3}{4}$ filled with water. If the volume of water in the container is 6 000 cm³, what is the height of the container?



Answer: _____ [3]

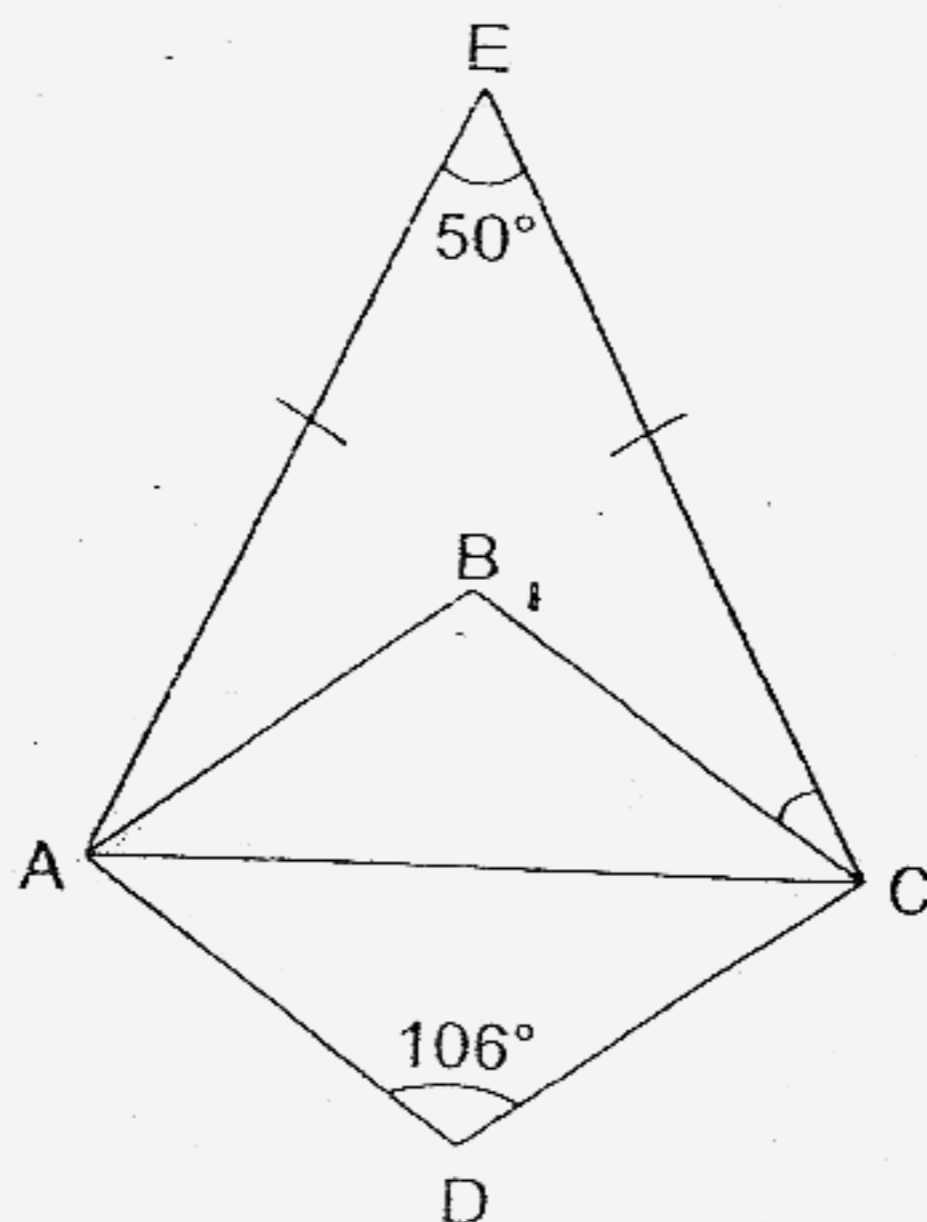
41. In a factory of 400 workers, 50% of the number of male workers is equal to 75% of the number of female workers. How many more male workers than female workers are there in the factory?

Answer: _____ [4]

42. Andrew is 5 kg heavier than Bernard, and 7 kg heavier than Charles. The average mass of these 3 boys is 53 kg. Find the average mass of Bernard and Charles.

Answer: _____ [4]

43. In the figure below (not drawn to scale), ABCD is a rhombus. If $AE = CE$, find $\angle BCE$. You must show all workings and label the necessary angles in the figure.



Answer: $\angle BCE =$ _____ [4]

44. $\frac{2}{5}$ of the coins in a container are 10¢ coins. The rest are 50¢ coins. The coins add up to be less than \$70 but more than \$65. Write down 2 possible values of the coins in the container.

Answer: _____, _____ [4]

45. The patterns below are made up of sticks.



Pattern 1



Pattern 2



Pattern 3

(a) Find the number of sticks required to form Pattern 4.

Pattern	Number of sticks used
1	5
2	9
3	13
4	

(b) Find the number of sticks required to form Pattern 10.

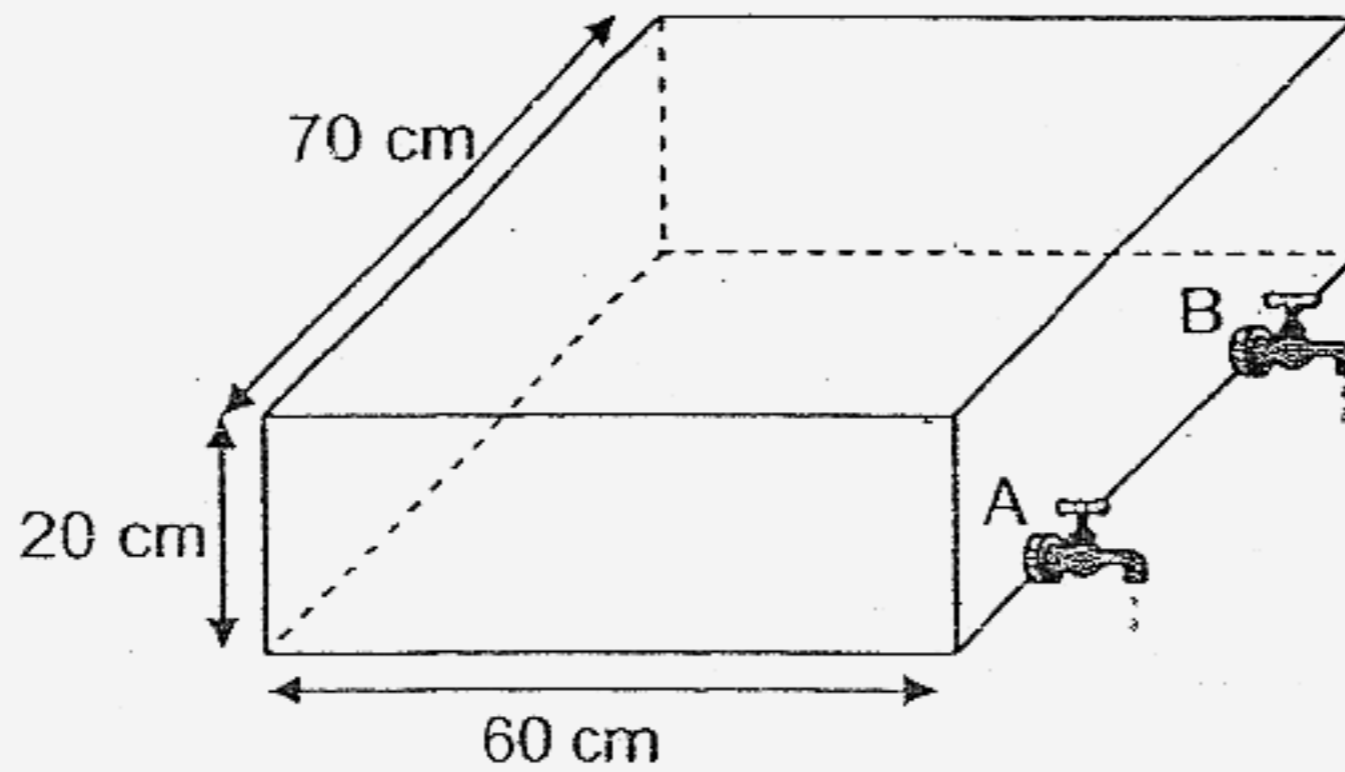
(c) 85 sticks are used to form a pattern. Which pattern was formed?

Answer: (a) _____ [1]

(b) _____ [1]

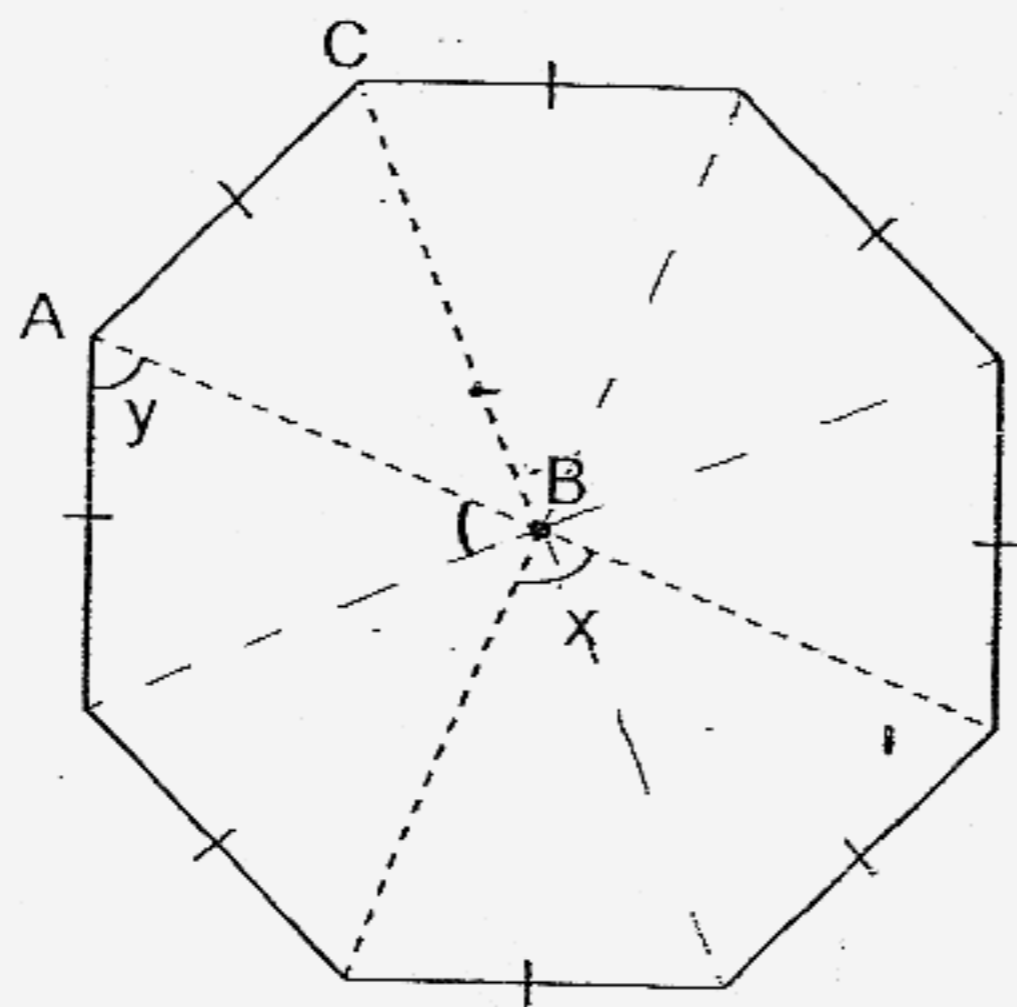
(c) _____ [2]

46. A rectangular tank 60 cm by 70 cm by 20 cm was filled to its brim with water. Tap A, which drained water out from the tank at 10 cm^3 per second, was turned on. After 15 minutes, Tap B, which drained water out at 30 cm^3 per second, was also turned on. How long did it take for 40% of the water to be drained out from the tank?
(Leave your answer in minutes and seconds).



Answer: _____ [5]

47. The figure below has 8 equal sides. Point B is the centre of the figure.



- (a) Find $\angle x$.
- (b) Find $\angle y$.

Answer: (a) _____ [2]

(b) _____ [3]

48. The number of Malvin's stamps to Ken's stamps was 2:3. After Malvin bought another 8 stamps and Ken lost 5 stamps, Malvin now has $\frac{4}{5}$ as many stamps as Ken. Find the total number of stamps the two boys had at first.

Answer: _____ [5]

Setter: Mr Seow KY
Vetter: P5 Math teachers

ACS Primary School

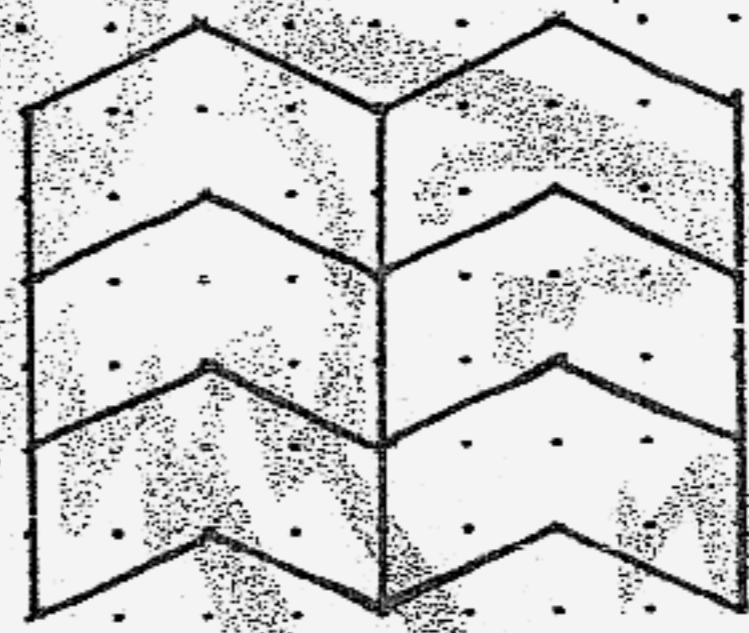
Primary 5 Maths SA2 Exam (2007)

Answer Keys

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

16. 170

17.



18. 40cm²

19. 7

20. North

21. 4.71

22. 87.5%

23. 986

24. 72.5

25. 55

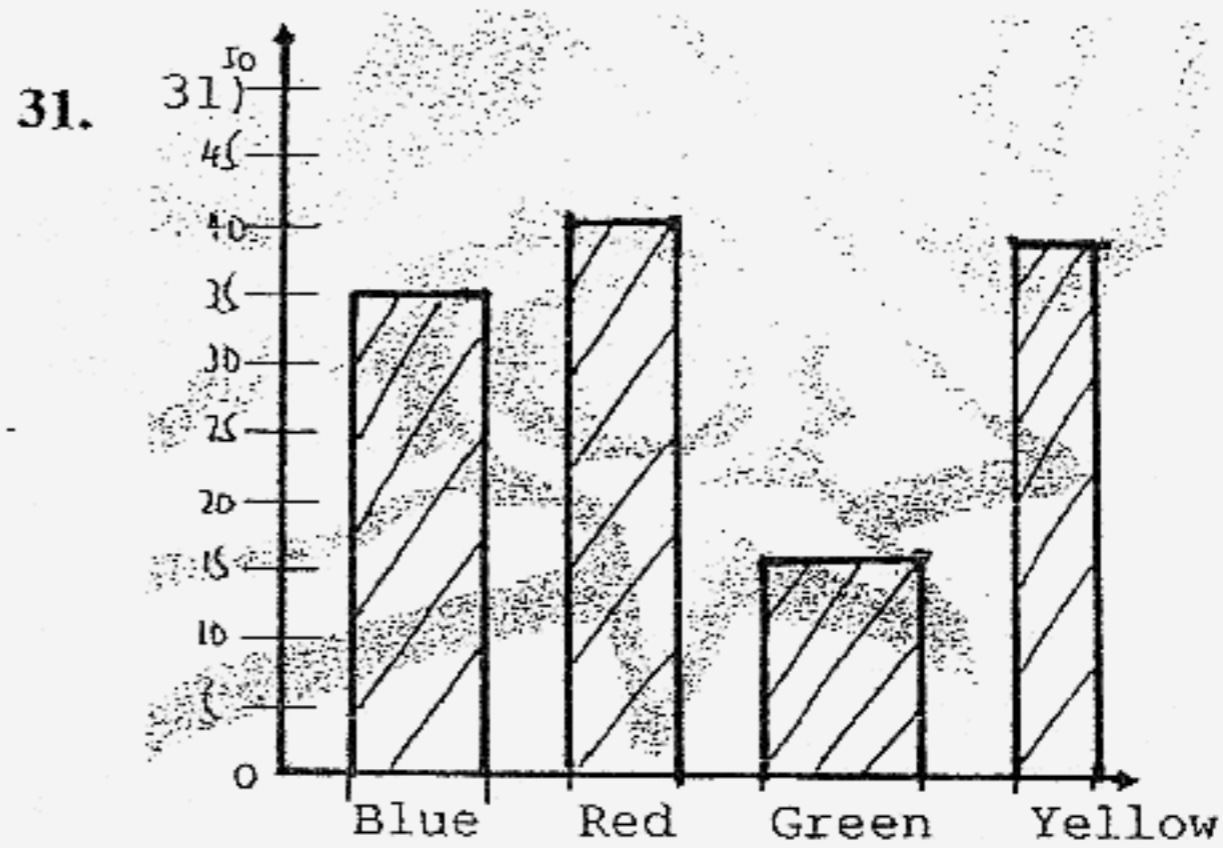
26. 83

27. 6.15

28. $\frac{7}{100} \times \$200 = \14
 $\$200 + \$14 = \$214$

29. $48 \times 4 = 192$
 $647 - 192 = 455$
 $455 \div 7 = 65\text{kg}$

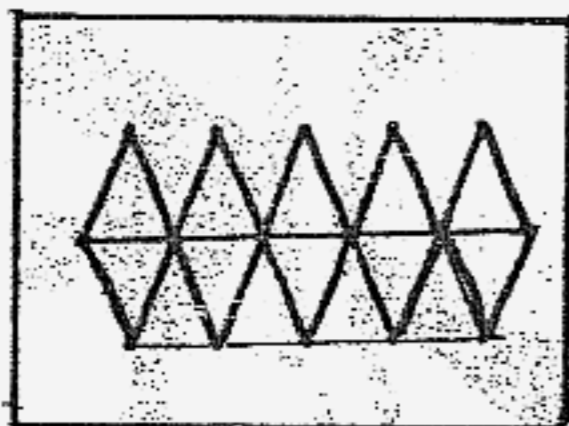
30. $20 \times \$10.50 = \210
 $20 \times \$9.20 = \184
 $4 \times \$9.20 = \30
 $\$(210 + 18 + 30) = \424



32. $180^\circ - 100^\circ = 80^\circ$
 $80^\circ \div 2 = 40^\circ$
 $180^\circ - 40^\circ = 140^\circ$
 $140^\circ \div 2 = 70^\circ$

33. $46^\circ \times 2 = 92^\circ$
 $180^\circ - 92^\circ = 88^\circ$

34.



35. $1 : 16$

36. $180^\circ - 95^\circ = 85^\circ$
 $130^\circ \div 2 = 65^\circ$
 $65^\circ + 85^\circ = 150^\circ$
 $180^\circ - 150^\circ = 30^\circ$
 $\angle c$ is 30°

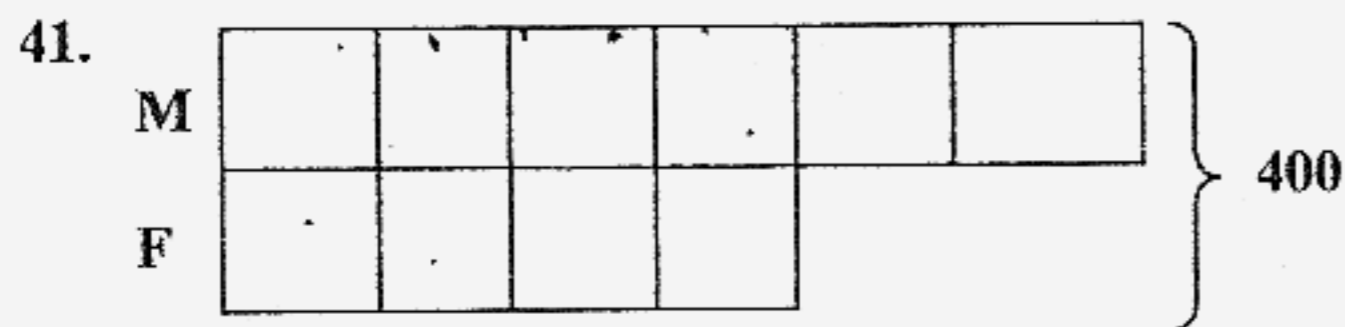
37. A $\longrightarrow \frac{1}{2} \times 4\text{cm} \times 3\text{cm} = 6\text{cm}^2$
 B $\longrightarrow \frac{1}{2} \times 8\text{cm} \times 4\text{cm} = 16\text{cm}^2$
 C $\longrightarrow \frac{1}{2} \times 5\text{cm} \times 4\text{cm} = 10\text{cm}^2$
 $(10 + 16 + 6)\text{cm}^2 = 32\text{cm}^2$
 The area of the figure is 32cm^2

38. J : T
 10 : 23
 The ratio is 10 : 23

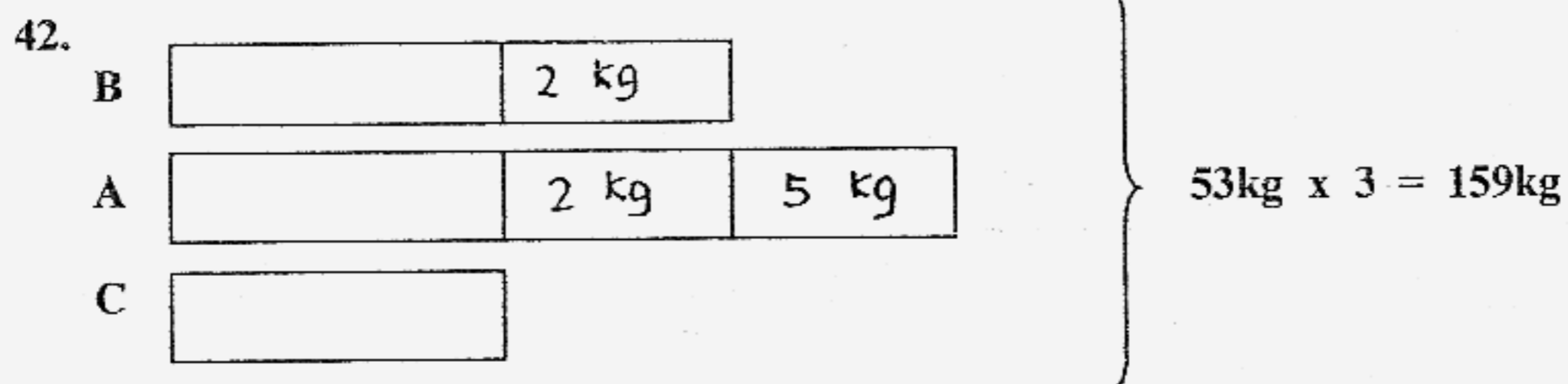
39. $\$30.40 - \$18.80 = \$11.60$
 $\$11.60 \div 2 = \5.80 (1kg)
 $\$5.80 \times 3 = \17.40
 $\$17.40 + \$30.40 = \$47.80$
 Jill has \$47.80

40. $\frac{6000}{25} \times 10 = 24$

$24 \div 3 = 8$
 $8 \times 4 = 32$
 The height is 32cm



$400 \div 10 = 40$
 $40 \times 20 = 800$
 There are 80 female workers.



$2\text{kg} \times 2 + 5 = 9\text{kg}$
 $159\text{kg} - 9\text{kg} = 150\text{kg}$
 $150\text{kg} \div 3 = 50\text{kg}$
 $50\text{kg} + 2\text{kg} = 52\text{kg}$
 $(52\text{kg} + 50\text{kg}) \div 2 = 51\text{kg}$
 The average mass of Bernard and Charles is 51kg

43. $180^\circ - 50^\circ = 130^\circ$
 $130^\circ \div 2 = 65^\circ$
 $180^\circ - 106^\circ = 74^\circ$
 $74^\circ \div 2 = 37^\circ$
 $65^\circ - 37^\circ = 28^\circ$
 $\angle BCE$ is 28°

44. \$68, \$69.70

45a. 17

45b. 41 stickers

45c. Pattern 21 is formed.

46. $60\text{cm} \times 20\text{cm} \times 70\text{cm} = 84000\text{cm}^3$

$$\frac{40}{100} \times 84000 = 33600\text{cm}^3$$

$$15 \times 60 = 900\text{sec}$$

$$900 \times 10\text{cm}^3 = 9000\text{cm}^3$$

$$33600\text{cm}^3 - 9000\text{cm}^3 = 24600\text{cm}^3$$

$$24600\text{cm}^3 \div 40 = 615\text{sec}$$

$$= 25\text{min } 15\text{sec}$$

It will take 25min 15sec

47a. $360^\circ \div 8 = 45^\circ$

$$45^\circ \times 2 = 90^\circ$$

$$\angle x \text{ is } 90^\circ$$

47b. $180^\circ - 45^\circ = 135^\circ$

$$135^\circ \div 2 = 67.5^\circ$$

48. $4 \left\{ \begin{array}{l} M : K \\ 2 : 3 \\ +8 \quad +5 \end{array} \right\} 5 \quad 20 \left\{ \begin{array}{l} M : K \\ 10 : 12 \\ +40 \quad +20 \end{array} \right\}$

$$40 + 20 = 60$$

$$60 \div 2 = 30$$

$$30 \times 5 = 150$$