Name: _____ _____ (   )   Marks   /100

Class: Primary 6 (   )   Parent's Signature

Duration: 2 hr 15 min   _____

<u>Section A</u>
Questions 1 to 5 carry one mark each. Questions 6 to 15 carry two 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.

(Total: 25 marks)

1. In 689 754, the digit '9' stands for _____.

(1) 90   (2) 900
(3) 9 000   (4) 90 000

2. 680 × [   ] = 200 000 + 4 000

The missing number in the box is _____.

(1) 30   (2) 100
(3) 300   (4) 3 000

3. $\frac{2}{3} \times \frac{4}{5}$ is the same as _____

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

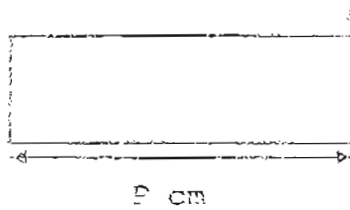(3) $\frac{3}{4} \times \frac{2}{5}$ (4) $\frac{5}{4} \times \frac{2}{3}$

4. How many curved faces does this solid have?

(1) 1   (2) 2
(3) 3   (4) 4

5. The length of the rectangle shown below is 3 times its breadth. Its area is _____ cm².

p cm

(1) $\frac{2}{3}p$

(2) $\frac{4}{3}p$

(3) $\frac{1}{3}p^2$

(4) $3p^2$

6. Find the value of

$414 \div 90 - 6 \times 25 + 45 \div 45$

(1) 31   (2) 40
(3) 223   (4) 1351

7. The length of String A is $\frac{3}{8}$ the total length of String A and String B. What is the ratio of the length of String B to the length of String A?

(1) 3 : 5   (2) 5 : 3
(3) 3 : 8   (4) 8 : 3

8. The ratio of Alex's age to Benny's age is 3 : 2 and the ratio of Benny's age to Carol's age is 3 : 2. Find the ratio of Alex's age to Carol's age.

(1) 3 : 2   (2) 3 : 4
(3) 4 : 9   (4) 9 : 4

9. Which one of the following algebraic expressions is correct?

(1) $m \times m \times m = 3 \times m$

(2) $m \div m = m$

(3) $m^2 + 4 = m \times m + 4$

(4) $m + 5m + 6 = 11m$

3

10. Which one of the following fractions is smaller than $\frac{1}{4}$, but greater than $\frac{1}{5}$?

(A) $\frac{1}{9}$ (B) $\frac{2}{9}$

(C) $\frac{1}{3}$ (D) $\frac{4}{9}$

11. Find the quotient when 11 470 is divided by 28.

(1) 18 (2) 49
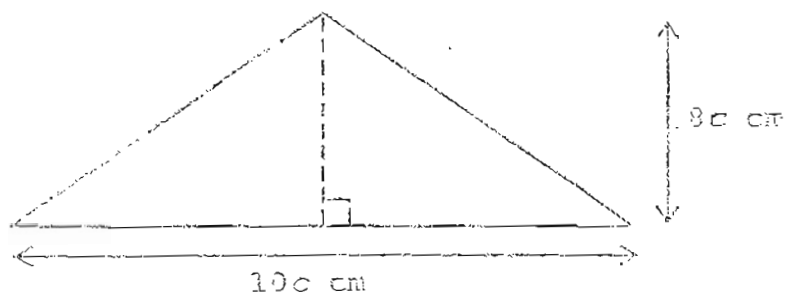(3) 409 (4) 490
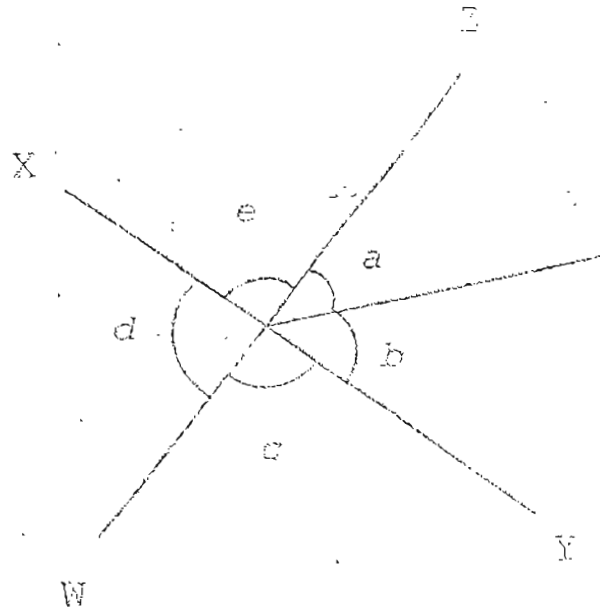
12. The area of the triangle shown below is _____ cm^2.
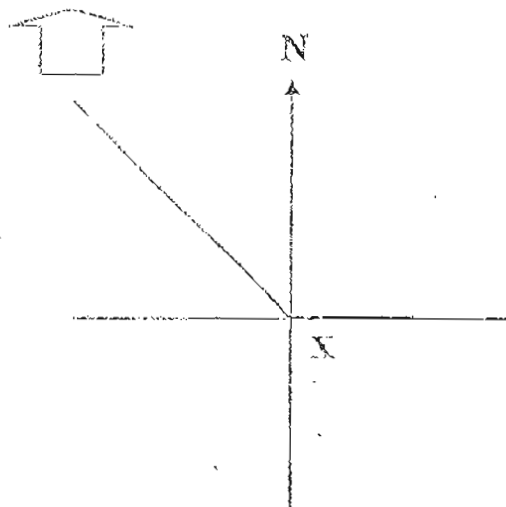

8c cm

10c cm

(1) 40c (2) 40c²
(3) 80c (4) 80c²

4

13. In the figure below, XY and WZ are straight lines. Which one of the following mathematical statements is true?

(1) $\angle a = \angle b$

(2) $\angle a + \angle e = \angle c$

(3) $\angle a + \angle b = \angle d$

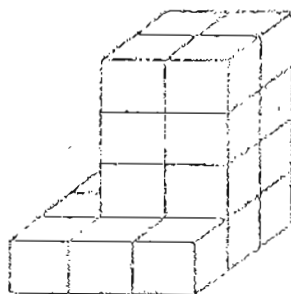(4) $\angle b + \angle c = \angle d$

14. tree house

A bird which started flying from X towards the tree house suddenly made a 90° anti-clockwise turn. In which direction would the bird be flying?

(1) S   (2) NE
(3) SE   (4) SW

15. The solid figure below is made up of unit cubes. How many more cubes would be needed to make a cuboid of length 5 cm, breadth 3 cm and height 4 cm?

(1) 27   (2) 39
(3) 42   (4) 60

Section B

Questions 16 to 35 carry 1 mark each. Write your answers
in the spaces provided. Give your answers in the units
stated. (Total: 20 marks)

16. Which number comes just before nine million and one
    hundred thousand? Give your answer in numerals.
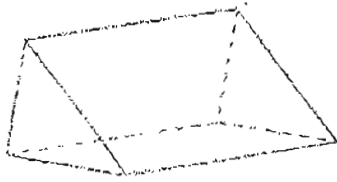
    Answer: _____

17. Find the value of $(100 - 8 \times 8) \div 2 + 2$

    Answer: _____

18. Express the ratio of 8 grams to 0.24 kg in its
    simplest form.

    Answer: _____

19. Solid B has _____ more faces than Solid A.

Solid A   Solid B.

Answer: _____ _____

20. $1776 \div 8 \div \boxed{} = 1776 \div 48$

What is the missing number in the box?

Answer: _____

21. $\heartsuit + \heartsuit + \heartsuit + \heartsuit = 512$

$\oslash + \oslash + \heartsuit + \heartsuit + \heartsuit = 962$

What is the value of $\oslash$?

Answer: _____

8

22. Mr Wong saves $380 every month. How much would he save in $1\frac{1}{2}$ years?

Answer: $_____

23. Find the missing fraction in the following pattern. Leave your answer in the simplest form

$1\frac{2}{5}$, $1\frac{11}{15}$, $2\frac{1}{15}$, ☐ , $2\frac{11}{15}$

Answer: _____

24. What is the missing number in the box?

15 × 810 + ☐ × 81 = 60 × 810

Answer: _____

25. Find the value of $5 \times 6b - b$ if $b = \frac{1}{6}$.

Answer: _____

26. The model of a bus is made using a scale of 1 : 20. This means that 20 cm of the actual bus is represented by 1 cm on the model. If the length of the actual bus is 12 m, calculate the length of the model. Express your answer in centimetres.
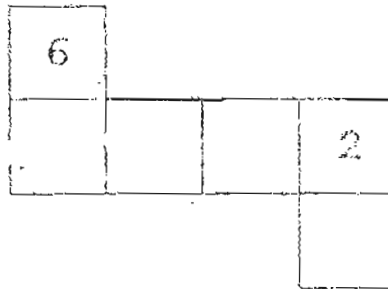
Answer: _____ cm

27. Below are two views of the same cube with faces showing numbers 1, 2, 3, 4, 5 and 6.
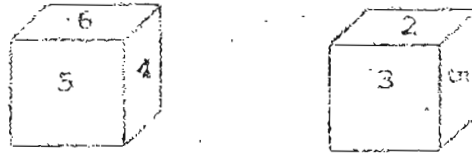
Based on the 2 views of the cube shown above, complete the net of the cube below by filling in the missing numbers.

Answer:

28. How many sixths are there in $8\frac{1}{2}$?

Answer: _____

29. What is the difference between $6\frac{17}{20}$ and $9\frac{3}{4}$?
Leave your answer in the simplest form.

Answer: _____

30. Box X is $\frac{3}{4}$ as heavy as Box Y while Box Y is $\frac{4}{9}$ as heavy as Box Z. If the total weight of Box Y and Box Z is 338 kg, find the weight of Box X.

Answer: _____ kg

11

31. The rectangle below measures 20 cm by 16 cm. Find the total area of the shaded parts.


16cm

20cm
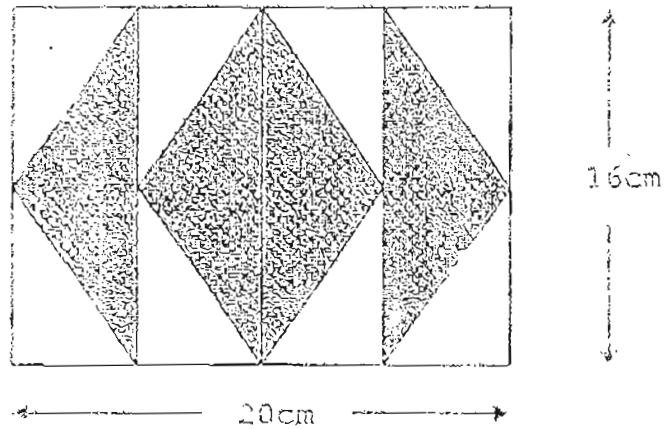
Answer: _____ cm²

32 A garden has a koi pond in it. The area of the koi pond is $\frac{2}{9}$ the area of the garden. Find the area of the garden not covered by the koi pond if the area of the koi pond is 224 m².
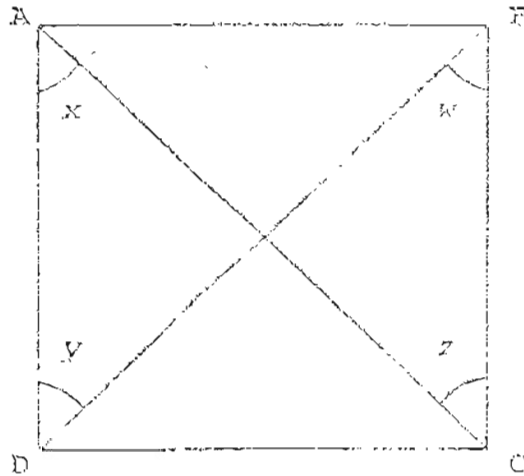
Answer: _____ _____ m²

33. The figure below shows 3 identical rectangles A, B and C and 2 shaded areas of the same size. Given that $\frac{2}{5}$ of rectangle A is shaded, what is the ratio of the shaded areas to the area of the whole figure?
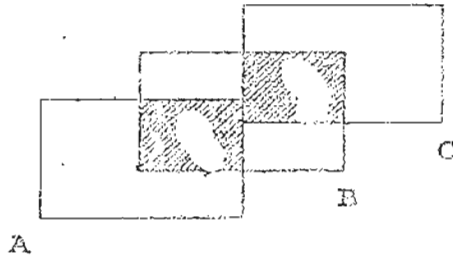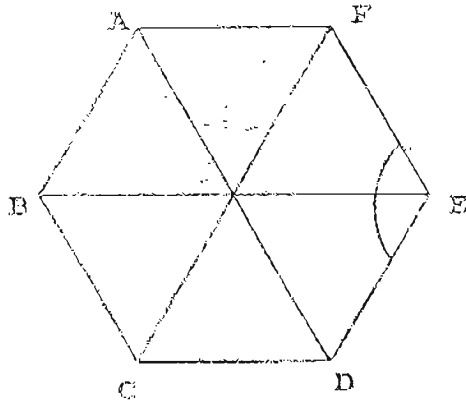
Answer. _____

34. In the figure, ABCD is a square Find $\angle x + \angle y + \angle w + \angle z$.

Answer: _____

35. The figure below is made up of 6 equilateral triangles. Find ∠FED.

Answer: _____

Name: _____ ( ) Class: Pr 6 ( )

P6 CA1 2004

Section C

For questions 36 to 50, show your working clearly in the space below each question and write your answers in the space provided.

The number of marks available is shown in brackets [ ] at the end of each question or part-question.

(Total: 55 marks)

36. The admission fee to the zoo is $m for a child and $12 for an adult. What is the total amount Mr Li has to pay if he brings his 3 children to the zoo? Express your answer in terms of m.

Answer: _____ [2]

37. David, Elizabeth and Fiona share $195 in the ratio 4 : 5 : 6 respectively. Find the amount Fiona receives.

Answer: _____ [2]

15

38. The following diagram is the net of a tissue box. Find the rectangular base area of this tissue box.

25 cm

70 cm
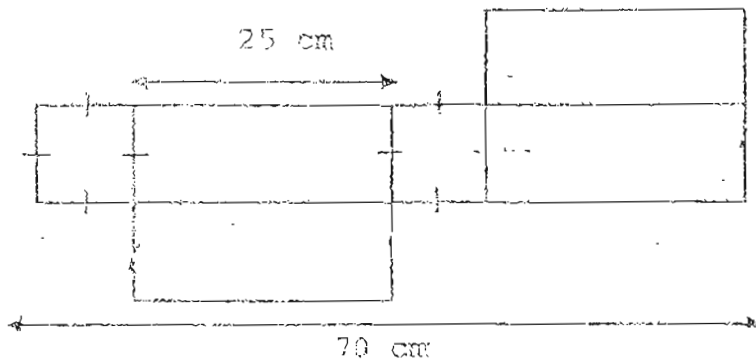
Answer: _____ [3]

39. Ali has 3 times as many marbles as Peter. After Ali buys 98 marbles and Peter buys 156 marbles, both of them have the same number of marbles. Find the total number of marbles they have now.
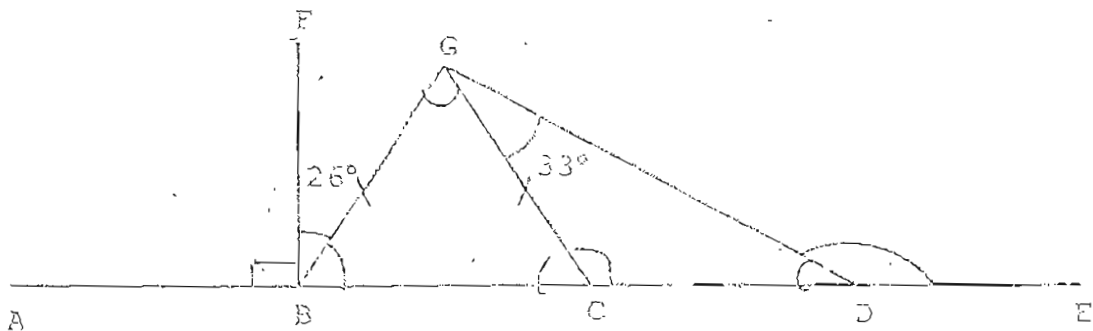
Answer: _____ [3]

40. Edmund wants to buy the same number of apples and pears with a $50 note. Apples cost $0.36 each and pears cost $0.47 each.
(a) How many pairs of apples and pears can he buy?
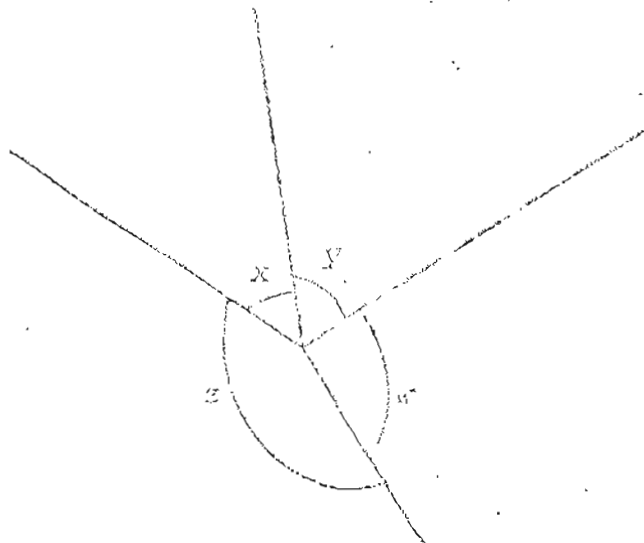(b) How much change will he receive?

Answer: (a) _____ [2]

(b) _____ [1]

41. In the figure, not drawn to scale, ABCDE is a straight line. Given that ∠ABF is a right angle and BCG is an isosceles triangle, find ∠GDE.

Answer: _____ [3]

42. The figure below is not drawn to scale.
The ratio of the size of $\angle y$ to that of $\angle w$ to that
of $\angle z$ is 3 , 4 : 6.

If $\angle x$ is $\dfrac{1}{3}$ of $\angle z$,

find (a) the ratio of the size of $\angle w$ to that of $\angle z$
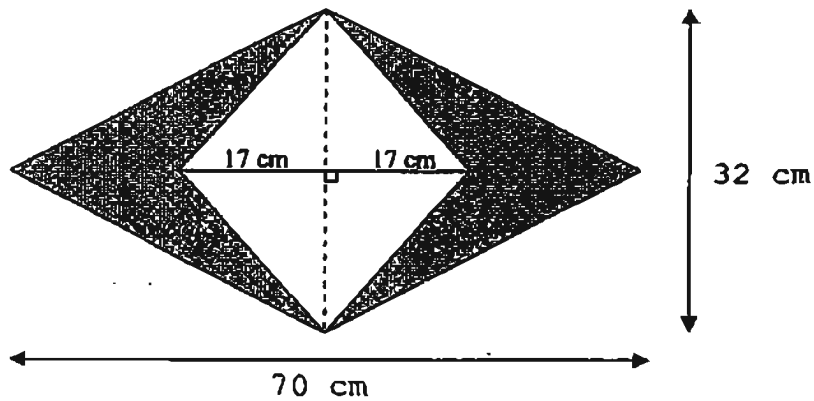   to that of $\angle x$.

    (b) $\angle z$.

Answer: (a)_____ _____ [2]

       (b) _____ [2]

18

43. A Stamp Club had 1 500 sets of stamps for sale. Of the 189 members in the club, 42 bought 15 sets each. The rest of the members wanted to buy 10 sets each. How many sets of stamps was the club short of?

Answer: _____ [4]

44. Find the total area of the shaded parts.

Answer: _____ [4]

45. A survey conducted by a school revealed that $\frac{3}{5}$ of the pupils favoured bubble tea. $\frac{7}{10}$ of the pupils who liked bubble tea also liked Slurpee. If there were 63 pupils who liked both bubble tea and Slurpee, how many pupils participated in the survey?

Answer: _____ [4]

46. In January, the ratio of Ahmad's savings to Peter's savings was 7 : 3. In February, Peter's savings increased by $59 while Ahmad's savings decreased by $37. As a result, both of them had equal amounts of savings.

(a) How much more savings did Ahmad have than Peter in January?

(b) How much savings did Ahmad have in February?

Answer: (a) _____ [1]

(b) _____ [2]

47. Siti wanted to buy a discman but she had only $\frac{5}{7}$ of the money. After her mother gave her $24, she was still short of $\frac{1}{5}$ of the money.

(a) How much money was Siti short of?

(b) How much did the discman cost?

Answer: (a) _____ [3]

(b) _____ [2]

48. There were 4 960 people at a carnival. The ratio of the number of men to the number of women was 5 : 6, while the ratio of the number of woman to the number of children was 2 : 3. 573 people joined the carnival and 325 people left. The ratio of the number of men to the number of women to the number of children then became 1 : 2 : 5. What was the increase in the number of children?

Answer: _____ [5]

49. A rectangular piece of paper, coloured on one side, was folded to form the shape shown below. What was the area of the rectangular piece of paper before it was folded?
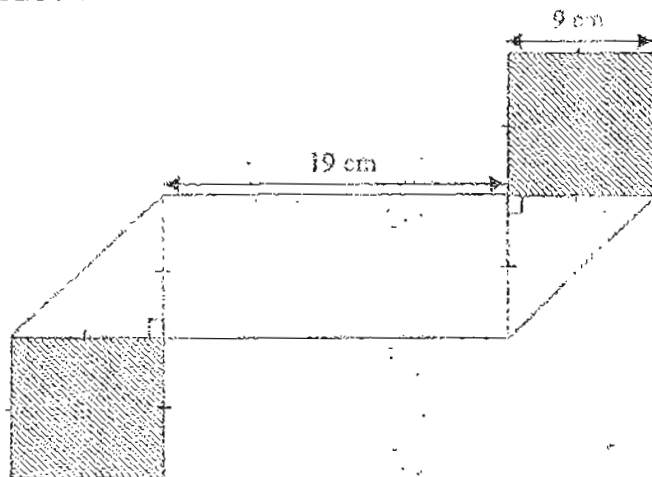
50. The total of 3 numbers, A, B and C was 312. Then A was halved, B was increased by 58 and C was decreased by 20. Now A and C are equal in value while B is twice of A. Find the original value of each number.

Answer: A: _____

B: _____

C: _____ [5]

☺ End of Paper ☺

Please Check Carefully

1) 3

2) 3

3) 1

4) 1

5) 3

6) 2

7) 2

8) 4

9) 3

10) 2

11) 3

12) 2

13) 2

14) 4

15) 2

16) 9099999

17) 20

18) 1 : 30

19) 4

20) 6

21) 289

22) 6840

23) 2 2/5

24) 450

25) 4 5/6

26) 60

27) 5   4   1
                    3

28) 51

29) 2 9/10

30) 78

31) 160

32) 784

33) 4 : 11

34) 180

35) 120

36) $ (3m + 12)

37) $ 75

38) 750 cm^2

39) 370 marbles

40) a) 60 pairs

    b) $ 0.70

41) 149°

42) a) 2 : 3 : 1

    b) $ 0.20

43) 600 sets

44) 576 cm^2

45) 150 pupils

46) a) $ 96

    b) $ 131

47) a) $ 56

    b) $ 280

48) 1023

49) 495 cm^2

50) a) 164

    b) 106

    c) 102