

Education and Manpower Bureau
Territory-wide System Assessment 2007
Primary 6
Mathematics

Instructions:

1. There are 42 questions in this test.
2. Answer all questions.
3. Time allowed is 50 minutes.
4. Use of calculators is not allowed.
5. Write your answers in this Question-Answer Booklet.

(a) Multiple choice questions:

Mark your answers by putting a “✓” in the “○”, e.g.:

$$2 + 3 =$$

○ A. 4 ☒ B. 5 ○ C. 6 ○ D. 7

(b) Questions in which you are asked to “Show your working”:

Write your mathematical expressions/equations, answers and statements/conclusions in the space provided. There is NO need to show your rough work.

(c) Other types of questions:

Answer as required in the space provided.

6. Do your rough work on the rough work sheet provided.
7. Write your School Code, Class and Class Number in the boxes below.

School Code
學校編號

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(5)

Class
班別

6	
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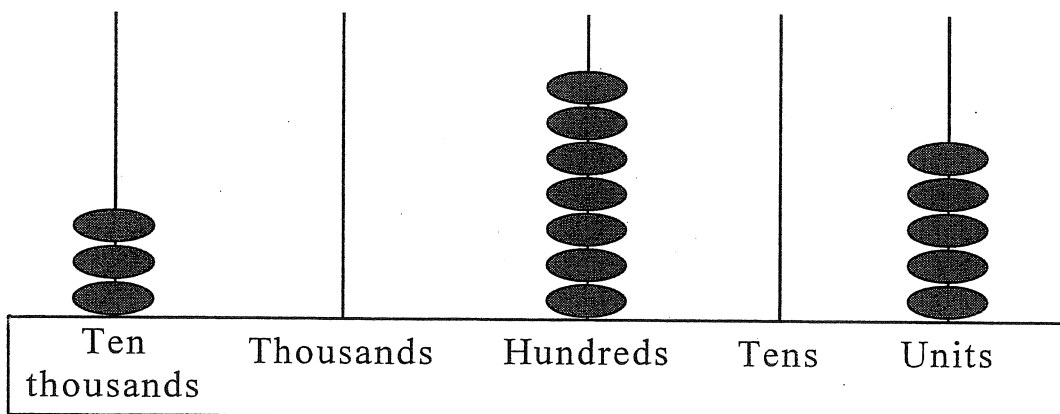
Class No.
班號

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(11)

Write one **capital letter** in this box
此格只許填寫一個大楷英文字母

1.



(a) Write in words the number shown on the above abacus.

Answer: _____

1 mark (12)

(b) In the number shown on the above abacus, the digit in the thousands place is _____, and the value of this digit is _____.

1 mark (13)

1 mark (14)

2. $53 \times 409 =$ _____

1 mark (15)

3. $3\frac{1}{9} - 1\frac{2}{9} + 2\frac{4}{9} =$

1 mark (16)

4. $10\frac{1}{2} \div 2\frac{2}{13} =$

1 mark (17)

5. $3\frac{5}{6} + 2\frac{1}{10} \times 5 =$

1 mark (18)

6. $3.6 \times (12 - 4.9) =$ _____

1 mark (19)

7. Which of the following expressions is most suitable for estimating the value of $2.1 + 5\frac{1}{9} \div \frac{1}{3}$?

☐ A. $2 + 5 \div 3$

☐ B. $2 + 5 \times 3$

☐ C. $2 + 6 \div 3$

☐ D. $2 + 6 \times 3$

(20)

8. List all the factors of 38.

Answer: _____

1 mark (21)

9. Before visiting his uncle at the hotel, Tom has to find out his uncle's room number. His uncle says, "My room number is one of the following numbers and it is a common multiple of 27 and 36." Circle the room number of Tom's uncle.



1 mark (22)

10. Find any two numbers that have 28 as their least common multiple (L.C.M.).

Answer: The two numbers are _____ and _____.

1 mark (23)

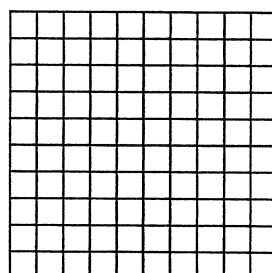
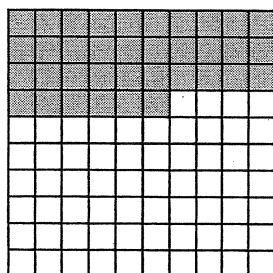
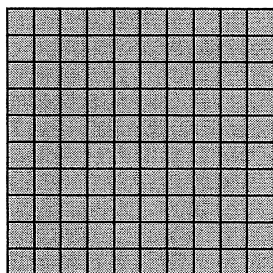
11. Fill in each of the following boxes with the correct number.

$$3 = \frac{12}{\boxed{}} = \frac{\boxed{}}{30}$$

1 mark (24)

1 mark (25)

12.



The above diagram shows three large squares. If each large square represents 1, use a decimal to show the shaded part of the above diagram.

Answer: _____

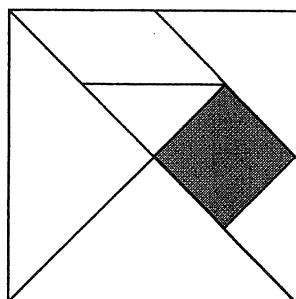
1 mark (26)

13. Change $3\frac{7}{15}$ into a decimal and correct it to the nearest hundredths.

Answer: _____

1 mark (27)

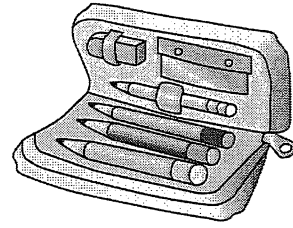
14. The diagram below shows a tangram. What percentage of the whole diagram is shaded?



- ☐ A. 12.5 % ☐ B. 14.3 %
☐ C. 16.7 % ☐ D. 25 %

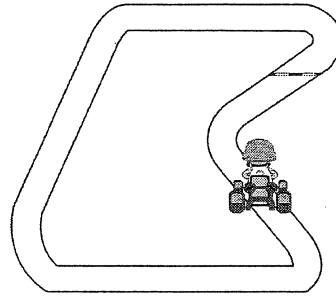
(28)

15. Mum divides \$536 equally among John, Kitty, Peter and I. I use half of my share to buy a packet of stationery. The price of the stationery is \$ _____.



1 mark (29)

16. A race track is $4\frac{3}{8}$ km long. How far has the sports car travelled after going round the track $14\frac{4}{5}$ times?



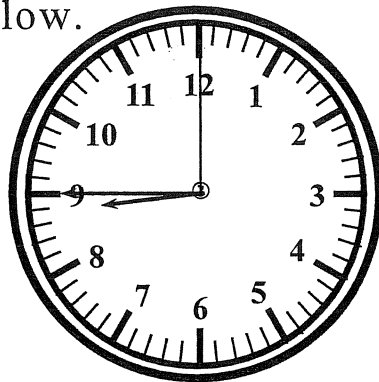
Answer: The sports car has travelled _____ km.

1 mark (30)

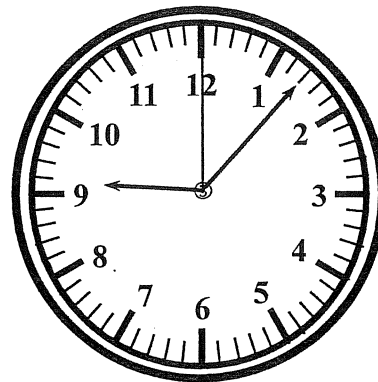
17. Mary and her brother go to school 5 days a week by bus. They spend altogether \$110.50 on bus fare each week. Mary spends \$12.60 on bus fare each day, so her brother spends \$ _____ daily on his bus fare.

1 mark (31)

18. Dad made a long distance call this morning to his client in Beijing. The phone records showing the length of the call are shown below.



Starting Time



Finishing Time

Long distance calls are charged \$1.65 per minute. How much does Dad need to pay for the call to Beijing?

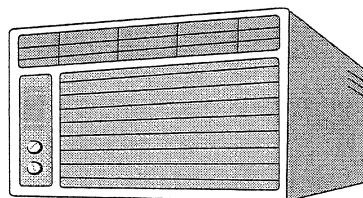
Answer: Dad needs to pay _____ dollars and _____ cents.

1 mark (32)

19. An iron rod is originally 14.07 cm long. After the rod is heated up, its length increases by 0.65 cm. The length of the iron rod after it is heated up is _____ cm.

1 mark (33)

20. Mum bought an air-conditioner for \$3 400 and paid 5% more for delivery. How much did Mum pay for the air-conditioner altogether?
(Show your working)



1 mark (34)

1 mark (35)

1 mark (36)

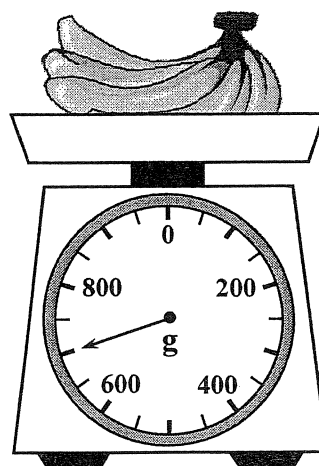
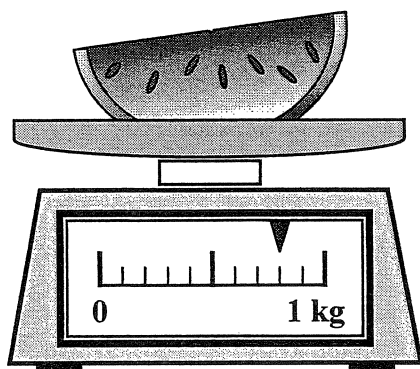
21. Ted and 7 of his classmates have a barbecue. They buy only 6 packs of barbecue food. If each pack is sold for \$48, how much does each person pay, on average?
(Show your working)



1 mark (37)

1 mark (38)

1 mark (39)

22.

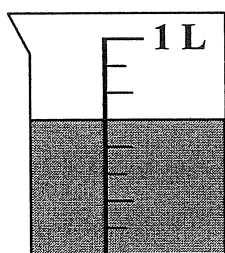


*  /  (*circle the answer) is lighter.

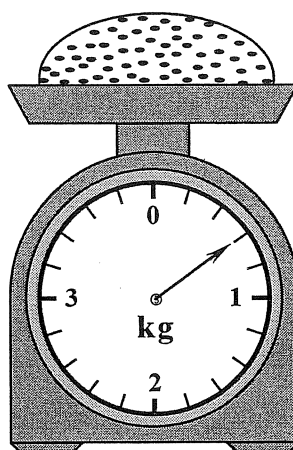
It is _____ g lighter than the other fruit.

1 mark (40)

23. Mum is baking a cake. Some of the ingredients needed to bake a cake are shown below.



Milk



Flour

According to the above diagram, to bake the cake mum needs:

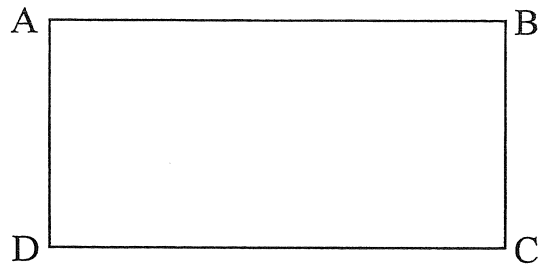
(a) _____ of milk (give the answer with a unit)

1 mark (41)

(b) _____ of flour (give the answer with a unit)

1 mark (42)

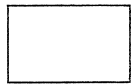
24. ABCD is a rectangle.



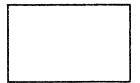
(a) Use a ruler to measure the length and the width of the rectangle.

Answer: AB = _____ cm and BC = _____ cm.

(b) The perimeter of the rectangle ABCD is _____ cm.

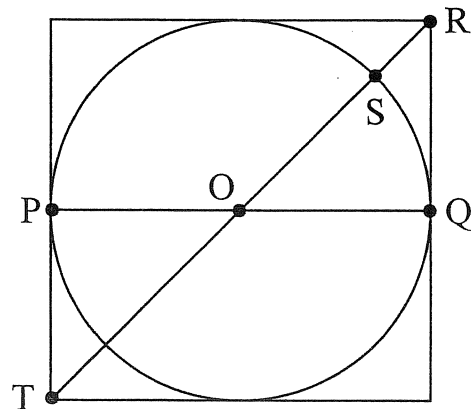


1 mark (43)



1 mark (44)

25. In the diagram on the right, a circle is drawn inside a square. O is the centre of the circle.



(a) Which of the straight lines is a diameter?

☐ A. PQ

☐ B. OS

☐ C. OR

☐ D. RT

(b) Which of the straight lines is equal in length to the side of the square?

☐ A. RT

☐ B. OR

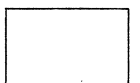
☐ C. OS

☐ D. PQ

(c) Is the perimeter of the square longer than the circumference of the circle? Why?

Answer: * Yes / No (*circle the answer). This is

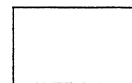
because _____
_____.



1 mark (47)

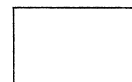
26. The circumference of a circle is 110 cm, find its radius. (Take π as $\frac{22}{7}$.)

Answer: Its radius is _____ cm.



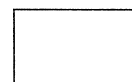
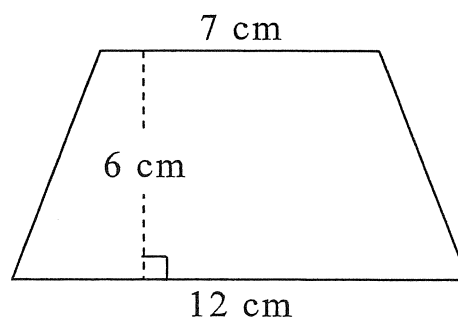
1 mark (48)

27. A piece of farmland in the shape of a square has sides that measure 17 m each. The area of the farmland is _____ m^2 .



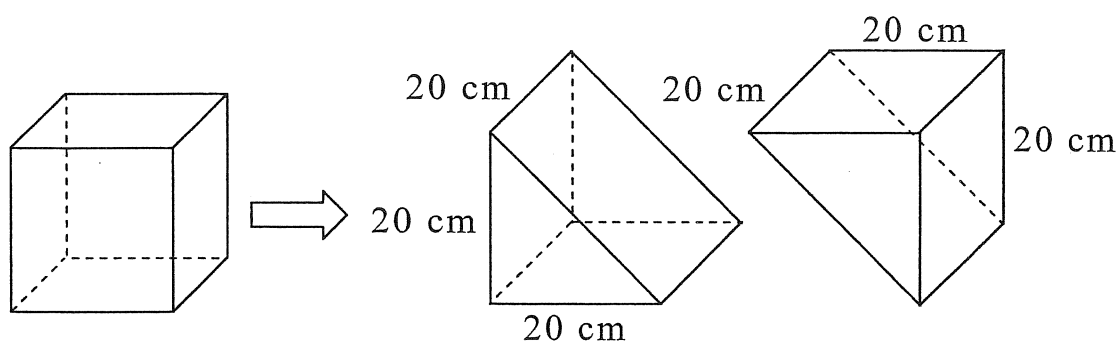
1 mark (49)

28. The area of the trapezium shown on the right is _____ cm^2 .



1 mark (50)

29.

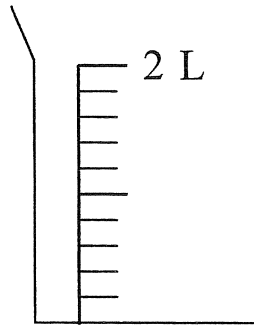


On the left of the above diagram is a cube. It is cut into two identical triangular prisms. The volume of each triangular prism is

- ☐ A. 200 cm^3
☐ B. 400 cm^3
☐ C. 4000 cm^3
☐ D. 8000 cm^3

(51)

30. $1\,800\text{ cm}^3$ of water is poured into the beaker below. Where should the water level be? Draw the water level on the beaker.



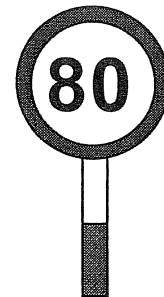
1 mark (52)

31. Which of the following units is most suitable for measuring the flying speed of a butterfly?

- ☐ A. m ☐ B. s/m
☐ C. m/s ☐ D. m s

(53)

32. A van travelled with an average speed of 80 km/h . How long did it take for the van to travel 140 km ?



Answer: It took _____ hours.

1 mark (54)

33. A 3-D shape with seven faces may be

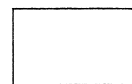
a _____ or

a _____ .

1 mark (55)

1 mark (56)

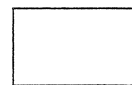
34. Two types of quadrilaterals have the following properties:
two pairs of parallel opposite sides and four equal sides.



1 mark (57)

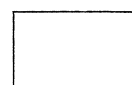
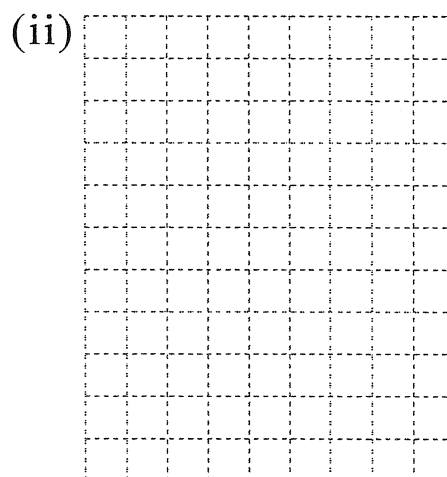
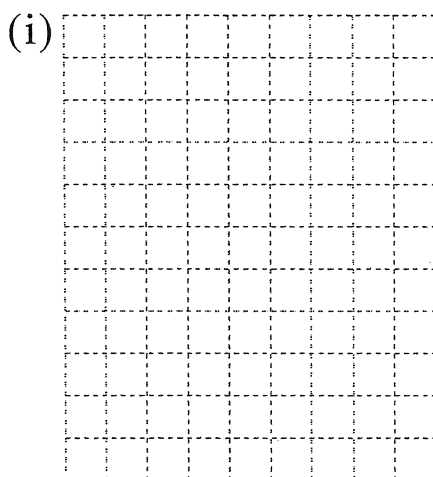
(a) Name these two types of quadrilaterals.

(i) _____ (ii) _____

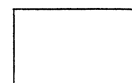


1 mark (58)

(b) Draw these two types of quadrilaterals on the following grids.



1 mark (59)



1 mark (60)

35. My sister originally has Q candies. After buying 20 more, she divides all her candies into 3 equal shares. How many candies are there in each share?

☐ A. $\frac{20Q}{3}$

☐ B. $\frac{Q + 20}{3}$

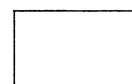
☐ C. $\frac{Q}{3} + 20$

☐ D. $\frac{Q - 20}{3}$

(61)

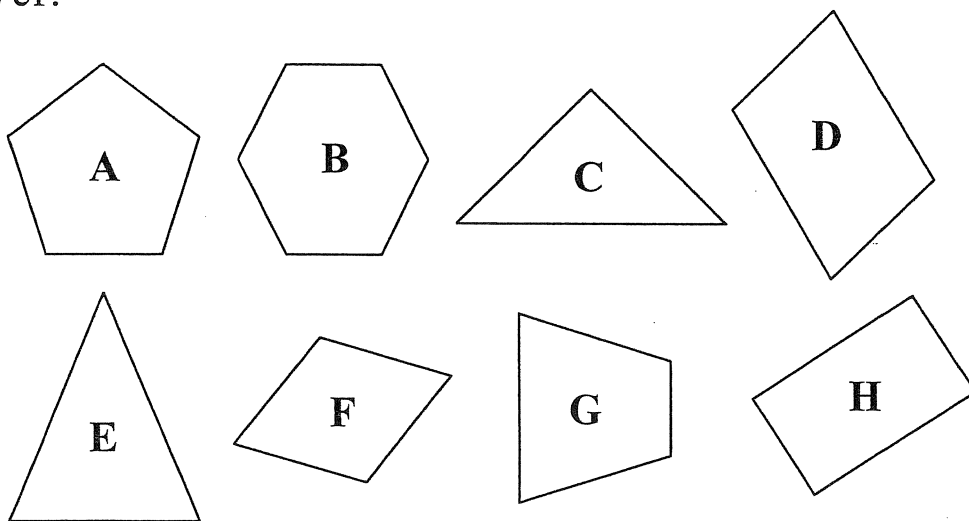
36. Find the average of the following 4 numbers: 162, 95, 118 and 109.

Answer: The average is _____.



1 mark (62)

37. Study the following 2-D shapes. Write the letter(s) for the answer.



(a) Right-angled triangle(s): _____

1 mark (63)

(b) Parallelogram(s): _____

1 mark (64)

(c) Trapezium(s): _____

1 mark (65)

(d) Pentagon(s): _____

1 mark (66)

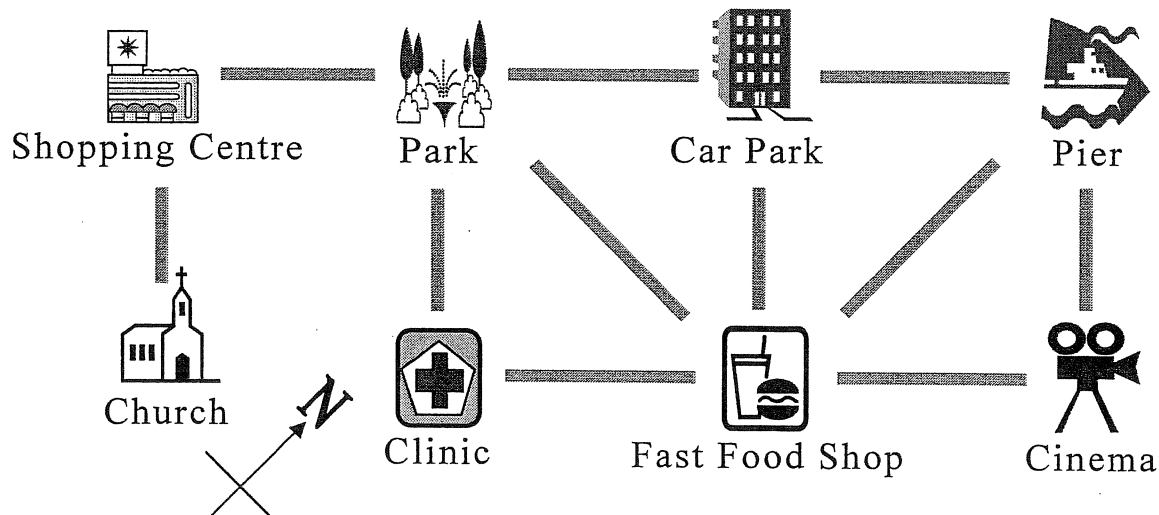
38. Solve the equation :

$$\frac{a}{3} = 15$$

$$a = \boxed{}$$

1 mark (67)

39.



- (a) The Fast Food Shop is to the _____ of the Pier,
(direction)
and the Cinema is to the _____ of the Clinic.
(direction)

1 mark (68)

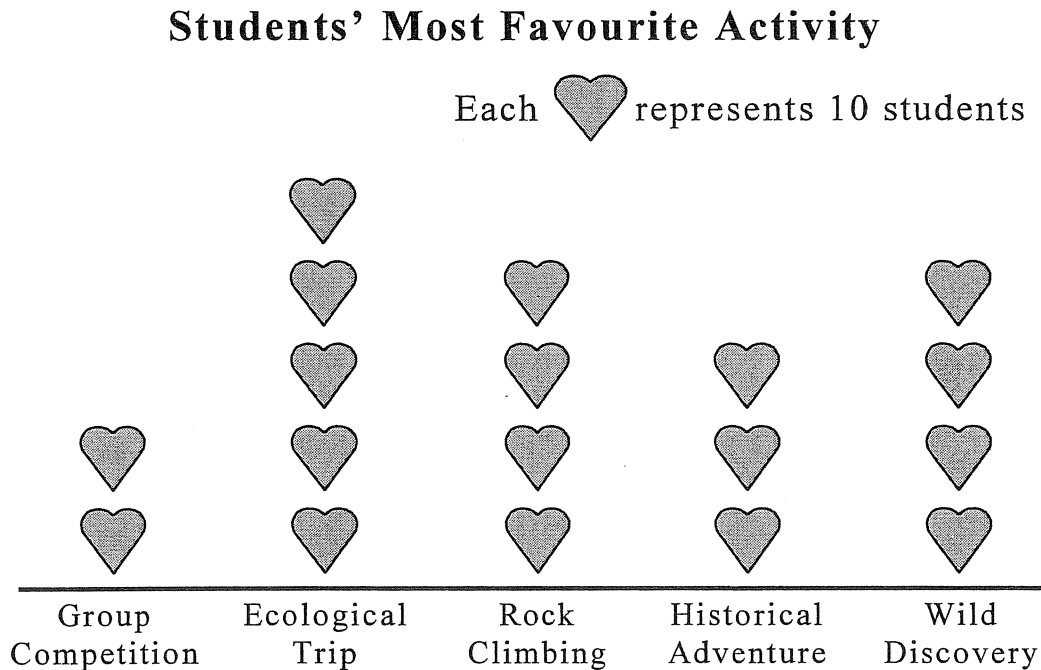
- (b) Fanny starts from the Car Park and goes _____,
(direction)
passes the Fast Food Shop, and then goes _____
(direction)
to reach the Clinic.

1 mark (69)

- (c) Mandy wants to go from the Church to the Park.
She first goes _____, passes the
(direction)
_____, and then goes _____ to
(direction)
reach the Park.

1 mark (70)

40. The instructor of an educational camp arranged five activities for students. Afterwards, all the students voted, by one-student-one-vote, for their most favourite activity. The results of the vote are shown below.



- (a) The most popular activity was _____, and the number of students who voted for it was _____.

1 mark (71)

- (b) The number of students who favoured Wild Discovery is _____ times that who favoured Group Competition.

1 mark (72)

- (c) The total number of students joining the educational camp was _____.

1 mark (73)

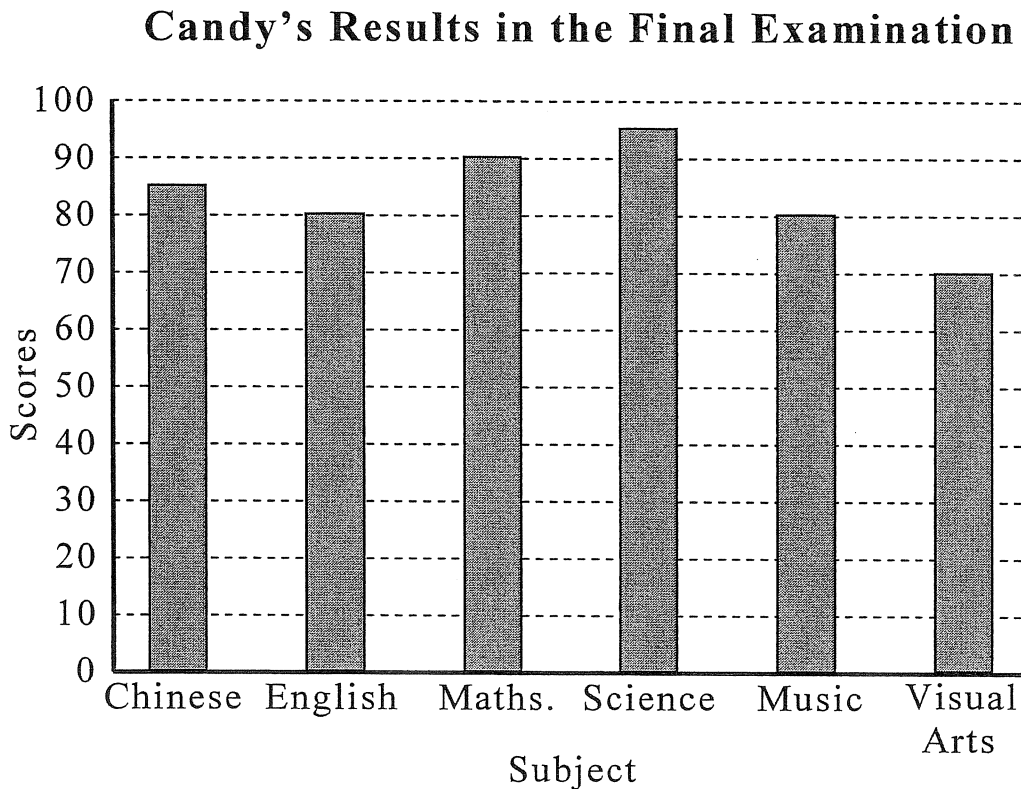
- (d) What fraction of the total number of students favoured Historical Adventure?

Answer: The fraction is

/

1 mark (74)

41. The following bar chart shows Candy's results in the final examination.



- (a) The scores of Candy in the best and the worst subjects differ by _____ .
- (b) Candy's average score in the final examination is _____ . (Correct the answer to one decimal place.)
- (c) This is the conversion table between scores and their corresponding grades:

Score 0-39	Score 40-59	Score 60-69	Score 70-84	Score 85-100
Grade E	Grade D	Grade C	Grade B	Grade A

- (i) In how many subjects does Candy get Grade A?

Answer: She gets Grade A in _____ subjects.

- (ii) What Grade does Candy get in Visual Arts?

Answer: She gets Grade _____ .

1 mark (75)

1 mark (76)

1 mark (77)

1 mark (78)

42. 4 times a number and add 36 equals 84. Find the number by the **method of solving equation**.
(Show your working)

1 mark (79)

1 mark (80)

1 mark (81)

— END OF PAPER —